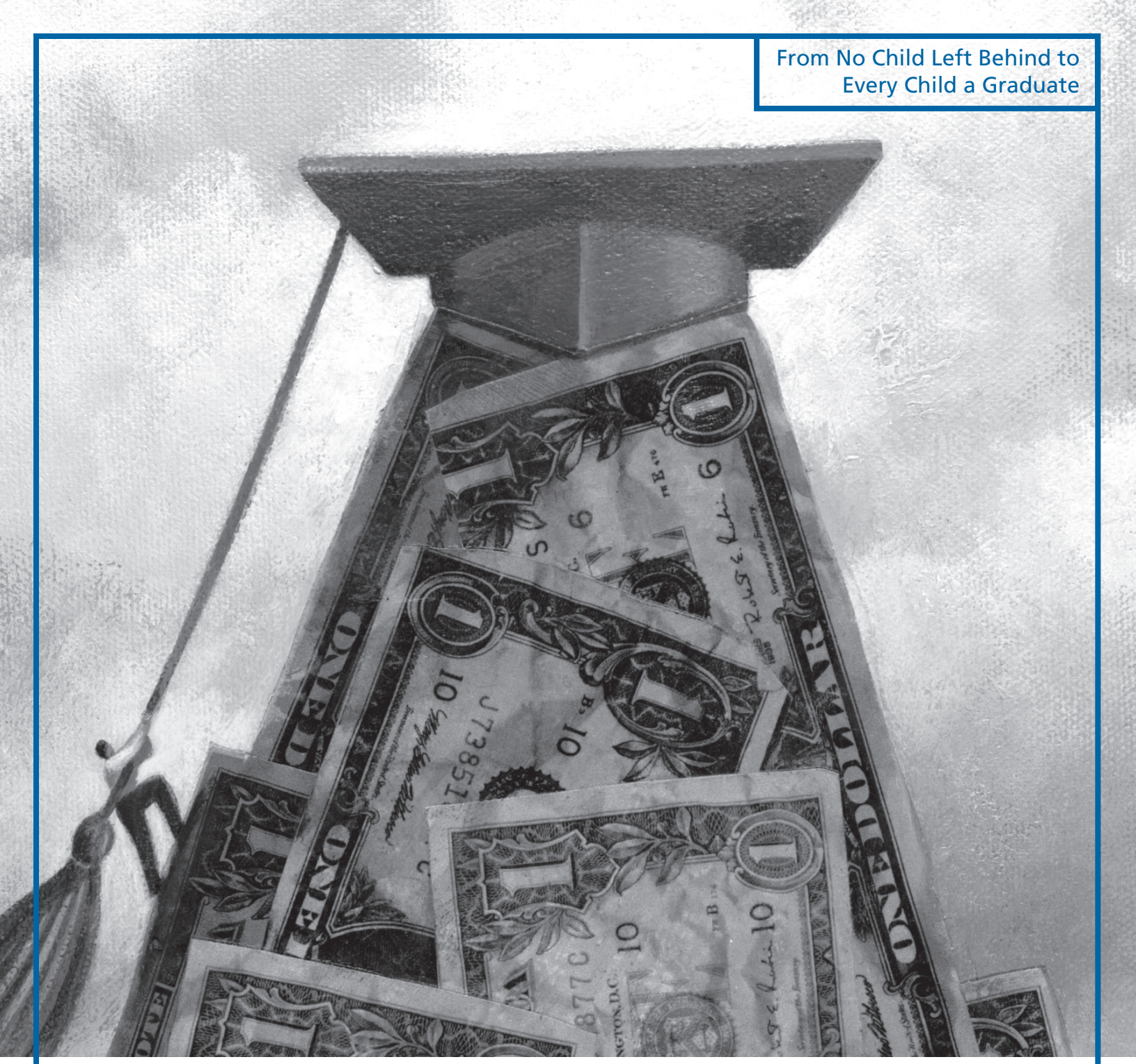
From No Child Left Behind to
Every Child a Graduate



Dropouts, Diplomas, and Dollars

U.S. High Schools and the Nation's Economy

ALLIANCE FOR
EXCELLENT EDUCATION

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August 2008

Jason Amos

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About the Alliance for Excellent Education

The Alliance for Excellent Education is a national policy, advocacy, and research organization created to help all middle and high school students receive an excellent education.

The Alliance focuses on America's six million most at-risk secondary school students (those in the lowest achievement quartile), who are likely to leave school without a diploma or graduate unprepared for a productive future. Based in Washington, DC, the Alliance works to make it possible for these students to achieve at high academic levels and graduate prepared for college, the modern workplace, and citizenship.

The Alliance's audience includes parents, teachers, and students, as well as the federal, state, and local policy communities, education organizations, the media, and a concerned public.

To inform the national debate about education policies and options, the Alliance produces reports and other materials, presents at meetings and conferences, briefs policymakers and the press, and provides timely information to a wide audience through its biweekly newsletter *Straight A's* and its regularly updated website (www.all4ed.org).

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The findings and conclusions presented in this report are those of the Alliance and do not necessarily represent the views of the funders or the original researchers.

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Executive Summary

For decades, Americans have been warned that U.S. dominance in the world's economy is fading because of the country's poor educational performance. Yet during these years, the Dow Jones Industrial Average has climbed to record highs, the U.S. gross domestic product has continued to grow, and the nation has enjoyed the longest economic expansion in its history.

At the same time, however, shifts have been taking place in society that portend—unless Americans begin to pay attention and make some significant changes—a major alteration in this positive economic status. Among the largest shifts is that the educational requirements of the jobs that have supported a strong economy are changing. The U.S. Department of Labor estimates that 90 percent of new high-growth, high-wage jobs will require some postsecondary education, in comparison to decades past, when even a high school dropout could find a position in the manufacturing or agricultural sectors that would support a family in a middle-class lifestyle.[1] Today, many jobs once held by high school dropouts or by individuals who had attained only a high school diploma are being automated or going overseas, leaving minimally educated Americans with increasingly diminished options to support themselves and their families.

No longer is the United States the world leader in graduating students from high school and college. This fall, more than four million students across the country will enter the ninth grade. Over the next four years, a third of these students will drop out before attaining a diploma; another third will graduate without having gained the skills and knowledge necessary to succeed in work or postsecondary education. In fact, for every one hundred ninth-grade students, only forty enroll in college immediately after high school, only twenty-seven are still enrolled in their sophomore year, and only eighteen graduate from two-year colleges within three years or four-year colleges within six.[2]

Individuals who fail to earn a high school diploma are at a great disadvantage, and not only when it comes to finding good-paying jobs. They are also generally less healthy and die earlier, are more likely to become parents when very young, are more at risk of tangling with the criminal justice system, and are more likely to need social welfare assistance. Even more tragic, their children are more likely to become high school dropouts themselves, as are their children's children, and so on, in a possibly endless cycle of poverty.

Over the next twenty-five years the challenges are unlikely to diminish. The world will continue to change, and good jobs will require even higher levels of education. And the retirement of the baby boom generation will create even more demand for new well-educated candidates to replace them in the workforce.

Another factor influencing the future of the nation's economy is the country's increasing racial and ethnic diversity. In the coming decades, the labor force is expected to become even more diverse than it is now, as minorities, with higher population growth through immigration, higher fertility rates, and higher labor force participation rates, are projected to expand their proportion of the workforce considerably.

But currently, America's high schools are failing to educate large percentages of the minority population. While about 70 percent of all American high school students graduate in the expected four years, the figures are much lower for minority populations. Only 57.8 percent of Hispanic, 55.3 percent of African American, and 50.6 percent of Native American students graduate on time, compared to 77.6 percent of white students.

If minority populations continue to grow larger as a percentage of the population, as predicted, and if their low graduation rates remain the same, the national graduation rate will begin to fall as a growing number of minority students are left behind. Already, minority students account for more than half of the nation's dropouts, even though they make up less than half of the nation's total public school population.

The United States can no longer absorb the costs and losses associated with an education system that already produces more than 1.2 million dropouts every year. Clearly, the dropouts themselves suffer the most direct impact. But the economy, social fabric, and security of the nation, states, and local communities are also affected. The opportunities these young people will miss throughout their lives will have cumulative costs for them as individuals and also represent a significant lost opportunity for the country. Consider the following:*

- Over the course of his or her lifetime, a single high school dropout costs the nation approximately $260,000 in lost earnings, taxes, and productivity. So, if the nation's secondary schools improved to the point at which they were able to graduate all of their students, the payoff would be significant. If the students who dropped out of the Class of 2008 had graduated, for example, the nation's economy would have benefited from an additional $319 billion in income over their lifetimes.

- High school dropouts are far more likely than high school graduates to be arrested or incarcerated. Increasing the high school graduation rate and college matriculation for male students by only 5 percent would lead to combined savings and revenue of almost $8 billion each year.

- Each student who graduates from high school will save states an average of $13,706 in Medicaid and expenditures for uninsured care over the course of his or her lifetime. States could save more than $17 billion if those young people earned their high school diplomas.

- For every $500 of wealth that households headed by a high school dropout accumulate, households headed by high school graduates possess approximately $5,000. This means that there would be an additional $74 billion in collective wealth in the United States if every household were headed by an individual with at least a high school diploma.

- Because too many students are not learning the skills they need to succeed in college or work while they are in high school, the nation loses more than $3.7 billion a year in costs associated with college remediation.

- If high schools and colleges were able to raise the graduation rates of Hispanic, African American, and Native American students to the levels of white students by 2020, the potential increase in personal income across the nation would add, conservatively, more than $310 billion to the U.S. economy.

* These costs should not be aggregated.

The stunning potential economic benefit to the nation and the states of improving outcomes for academically underserved youth through improved schooling should be a wake-up call. The importance of reforming America's high schools cannot be understated; the nation truly needs the economic and social contributions these young people can make. The realities of global competitiveness, the rapidly diminishing prospects of those students whose high schools fail to prepare them for college and work, and the resulting widening opportunity gap all make high school reform an imperative from an economic, national security, and civil rights perspective.

Reforming the nation's high schools will not be an easy process, and the kind of comprehensive school reform needed to ensure that all students have the opportunity to succeed and graduate prepared for the future is not simple. But knowledge is growing, and research and proven practice are providing the lessons that educators, policymakers, and others need to move forward toward effective reforms that will benefit all students and have a lasting and positive impact on America's economy and global competitive position.

The time to act is now. In an increasingly global economy, American secondary schools and their students must achieve at increasingly higher levels to allow the country to maintain its competitive advantage. Ensuring that all secondary students are prepared to succeed in college and work is a giant step in the right direction and will benefit individuals and society for decades to come.

Without systemic reform, prospects for the nation's economic prosperity will be severely damaged; today's dropouts and undereducated graduates will become tomorrow's poorly educated workers, struggling to find jobs and support their families. Instead of an education system that ensures that every child is a high school graduate prepared for college and success in life, the nation will be left with middle and high schools that typify the old adage, "You get what you pay for."

Introduction

Bill Gates has called them "obsolete."[3] Oprah Winfrey has said that the nation is in a "state of emergency" because of them.[4] Former U.S. Secretary of Education Rod Paige has called them an "unrecognized educational crisis."[5]

They are America's high schools. Designed for an era long since passed, many of the country's high schools no longer serve the needs of a nation powered by innovation and fueled by knowledge and skills. Instead of cultivating young minds and preparing the nation's next generation of leaders, America's high schools are hemorrhaging talent at the rate of seven thousand students every school day—a steady drip that grows into a tidal wave of more than 1.2 million dropouts each year, a number equal to the entire population of Dallas or San Diego.[6]

Fifty years ago, the nation could afford to lose large numbers of students before graduation because high school dropouts could still land well-paying jobs and support their families. But times have changed. Today, jobs that require relatively little education are increasingly done by machines or shipped overseas, and individuals who fail to earn a high school diploma are at a great disadvantage when it comes to finding a good-paying job. They are also generally less healthy and die earlier, are more likely to become parents when very young, are more at risk of tangling with the criminal justice system, and are more likely to need social welfare assistance. Even more tragic, their children are more likely to become high school dropouts themselves, as are their children's children, and so on, in an endless cycle of poverty.[7]

There is not only a moral imperative to provide every student with an equal opportunity to pursue the American dream; there is also an economic argument for helping more students graduate from high school. Most people understand the heavy yoke that high school students place around their own necks when they drop out of school, but few understand that the drag goes far beyond the impact on the individuals. High school dropouts influence a community's economic, social, and civic health. Having a large number of high school dropouts makes it more difficult for cities and states to attract new business. At the same time, additional spending on social programs and the criminal justice system drains state and federal coffers. Increasing numbers of dropouts translate not only into lost human potential and lower tax revenues, but also a vitiated democracy and a weakened ability to compete in the global economy.

The nation can no longer afford to lose more than a million students every school year. The situation is nothing short of a crisis, but it is largely ignored by the media and the public. This report seeks to help all Americans—whether they have a direct connection with schools or not—understand their own personal stake in ensuring that every child becomes a high school graduate, prepared for success in college, the modern workplace, and life.

The Dropout Crisis in the United States

"When I grow up, I want to be a high school dropout." That's certainly not a response that anyone would expect to hear from young children about their career plans. But right now in the United States, six million children in grades seven through twelve alone are at risk of dropping out of high school.[8]

Meet "Jake."* Jake is a fourteen-year-old white male from Virginia Beach, Virginia. He loves football and is a huge fan of the Washington Redskins. Jake is looking forward to starting high school in the fall because he'll get the chance to try out for the junior varsity football team. As a student in Virginia Beach, Jake has a 68.5 percent chance of graduating from high school, which is pretty close to the national average of 70.6 percent.[9]

Meet "Marcus." Marcus is a fifteen-year-old African American male from Detroit. He's not a huge football fan, but he loves basketball and the Detroit Pistons. Like Jake, Marcus will start high school this fall, but his prospects for making it to graduation day are dimmer than Jake's. It is much more likely that Marcus will drop out of school rather than earn his diploma; students enrolled in Detroit public schools have only a 37.5 percent chance of graduating.[10]

Meet "Christina." Christina is a fourteen-year-old Hispanic female from Cypress, Texas. Located about twenty miles from Houston, Cypress is one of the most affluent urban areas in the United States. Christina loves shopping and *American Idol*. She too will start high school in the fall, but she has a much better chance of receiving her diploma than Jake and Marcus do; the Cypress-Fairbanks school district has an 89.6 percent graduation rate.[11]

Jake, Marcus, and Christina represent three of the millions of high school students who will start high school in the fall. Unfortunately, four years from now they may be among the more than one million students who dropped out of school prior to graduation day.[12]

States with the Highest Graduation Rates		States with the Lowest Graduation Rates	
State	**Graduation Rate**	**State**	**Graduation Rate**
New Jersey	83.3%	Nevada	45.4%
Iowa	82.8%	New Mexico	54.1%
Wisconsin	80.5%	Louisiana	54.7%
Pennsylvania	80.4%	South Carolina	55.6%
Vermont	80.2%	Georgia	58.1%

Source: Editorial Projects in Education, "Diplomas Count 2008: School to College: Can State P–16 Councils Ease the Transition?" special issue, *Education Week* 27, no. 40 (2008).

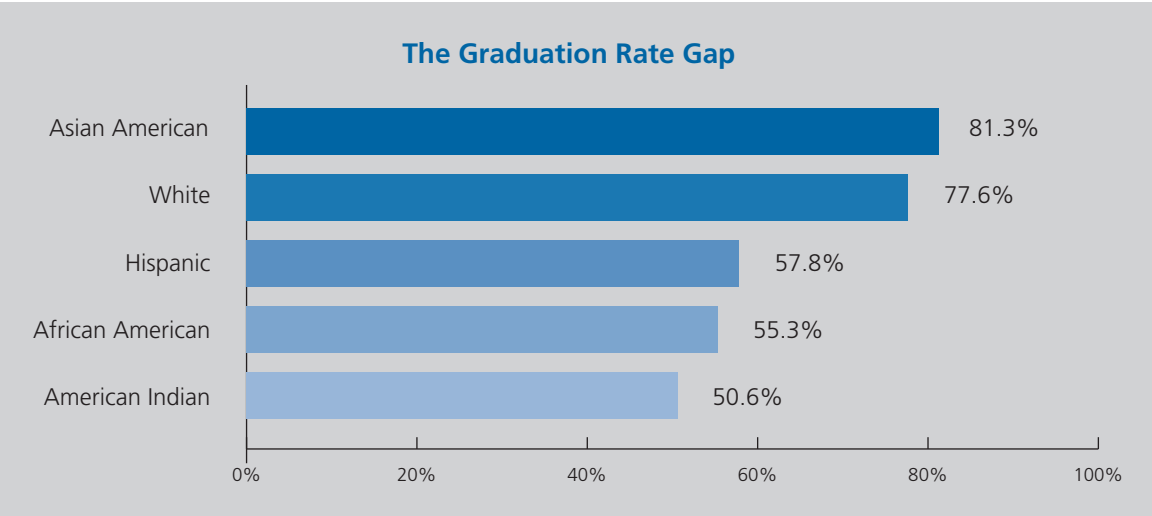
* These names are fictional and do not intentionally refer to any real person. Their stories, however, are representative of students in schools and communities around the nation.

According to independent estimates, only about 70 percent of high school students in the United States receive their high school diploma in the standard four years.[13] That number varies widely depending on where students go to school, their gender, and their racial and ethnic background. At the state level, for example, students in New Jersey, Iowa, Wisconsin, Pennsylvania, and Vermont graduate at a rate of at least 80 percent, while students in Nevada, New Mexico, Louisiana, South Carolina, the District of Columbia, and Georgia graduate at a rate of less than 60 percent.

Even within these states, there's a wide variation in graduation rates for African American, Latino, and American Indian students, who tend to have much lower rates than their white or Asian peers. In Iowa, for example, white students graduate at a rate of 84.8 percent, while African American (58.6 percent) and Hispanic (54 percent) students trail by more than 25 percentage points. In Wisconsin, the graduation rate gap is even more staggering, with white students, at 85.5 percent, graduating at rates more than 40 percentage points higher than African American students, whose average graduation rate is only 43.9 percent. Hispanic students, who graduate at a rate of 48 percent, do not fare much better.[14]

Iowa and Wisconsin are certainly not alone. In fact, sixteen of the thirty-nine states for which there is available data have a white-Hispanic graduation rate gap of more than 25 percentage points, while eleven of thirty-nine states have a white–African American graduation rate gap of more than 25 percentage points.[15]

At the national level, the average graduation rates of white and Asian American students are approximately 20 percentage points higher than those of African Americans, American Indians, and Hispanics, as indicated in the graph below.*



Source: Editorial Projects in Education, "Diplomas Count 2008."

* Because of the lack of disaggregated data, the Asian American statistics primarily reflect East Asians' overall academic successes and obscure the scholastic struggles of groups such as Southeast Asians and Pacific Islanders, who are often faced with obstacles such as poverty, racism, and limited access to educational resources. As a result, they begin school with severe disadvantages and have different academic and psychological needs than students of Asian descent who have lived in the United States for multiple generations. (Sources: K. Um, *A Dream Denied: Educational Experiences of Southeast Asian Youth: Issues and Recommendations* [Washington, DC: Southeast Asia Resource Action Center, 2003]; A. Kim and C. J. Yeh, *Stereotypes of Asian American Students* [ERIC ED462510] [New York: ERIC Clearinghouse on Urban Education, 2002].)

But economic situation, not race or ethnic background, is the demographic indicator most closely correlated with student performance. In fact, high school students from the wealthiest family backgrounds are about seven times more likely to complete high school as their classmates from the poorest backgrounds.[16]

Robert Balfanz and Nettie Legters, a research team at Johns Hopkins University, have found a "near perfect linear relationship" between a high school's poverty level and its tendency to lose large numbers of students between ninth and twelfth grade. In the states Balfanz and Legters have examined in more depth, minorities are promoted to twelfth grade at the same or greater rates as white students when they attend middle-class or affluent high schools in which few students live in poverty. Unfortunately, the researchers have also found that relatively few minority students attend these high schools; minorities are more likely to be concentrated in high schools with high poverty and low graduation rates.[17]

Thanks to research from Balfanz and Legters, as well as Christopher B. Swanson of the Editorial Projects in Education Research Center, data exists that allows one to zoom in and see how students are performing at the district and school levels. Even in this micro view, disparities are apparent across counties and within school districts.

For example, students in Dekalb County, Georgia, east of Atlanta, graduate at a rate of 58.9 percent, while students in Cobb County, northwest of Atlanta, graduate at a rate of 71.6 percent.[18] Meanwhile, students in Atlanta city schools graduate at a rate of 43.5 percent.[19]

Huge differences in graduation rates also often exist between schools within the same districts. At Henry W. Grady High School, located just south of Piedmont Park in midtown Atlanta, for instance, about 75 percent of students who enter the school in ninth grade make it to their senior year. Compare that to Washington High School, which was established in 1924 as Georgia's first high school for African Americans and counts Dr. Martin Luther King Jr. among its graduates; today, only about half of the students who enter the school in ninth grade make it to their senior year.[20]

Washington High is one of the nearly two thousand high schools across the country that have been designated by researchers at Johns Hopkins University as "dropout factories"—schools in which less than 60 percent of students who enter ninth grade make it to their senior year in the expected number of years. Even though these schools account for fewer than 15 percent of all high schools in the United States, they produce roughly half of the nation's dropouts and two thirds of all African American and Hispanic dropouts.[21] Dropout factories are found in every state except Utah.[22]

In terms of numbers, Texas, with 256 dropout factories, Florida, with 205, and Georgia, with 153, lead the way.[23] But when the figure is calculated as a percentage of the total number of high schools in the state, South Carolina, where more than half of all high schools are dropout factories, is the clear leader. There are eight other states in which at least one in four high schools is a dropout factory.[24]

State	Percentage of High Schools That Are Dropout Factories
South Carolina	59.3%
Georgia	50.7%
Florida	47.1%
North Carolina	33.9%
Arizona	29.5%
Hawaii	28.2%
Mississippi	27.6%
New Mexico	26.2%
Louisiana	25.7%

Source: Center for Social Organization of Schools, Johns Hopkins University, "National Profile: Percent of High Schools by Different Levels of Promoting Power," http://web.jhu.edu/CSOS/graduation-gap/power/state_Summary.pdf (accessed July 23, 2008).

Many of these dropout factories are exactly that—huge, impersonal buildings that look more like factories than high schools. Often, they are characterized by chronic student absenteeism, high dropout rates, widespread course failure, and low academic achievement.[25] In a 2007 Associated Press article on dropout factories, Loretta Singletary, 17, talked about the difficulties she faced in a Washington, DC, high school that she describes as huge, chaotic, and violent. "Girls got jumped. Boys got jumped, teachers [were] fighting and hitting students," she said.[26]

The structural similarities between these high schools and factories may not be a coincidence. Many students, both high school graduates and dropouts, from the decades during which the majority of these schools were planned and built—the early and middle decades of the twentieth century—were able to land good factory jobs. Large warehouse-like schools served these students moderately well. But today, many of those high schools fail their students primarily because they are doing exactly what they were designed to do. They are not able to adequately prepare today's students for the high-tech, knowledge-based, increasingly competitive global economy of the twenty-first century, because they were designed for an era in which individuals could get a decent job with good benefits even without a high school diploma.

In 1967, almost half of families headed by high school dropouts and 70 percent headed by high school graduates had earnings between $28,000 and $81,000 in current dollars and were considered part of the middle class. By 2004, only one third of dropouts and half of high school graduates were still in the middle class; virtually all high school dropouts had fallen below the middle-class threshold of $28,000 and into the bottom 20 percent of family incomes.[27]

Many of the manufacturing jobs that once offered attractive options for high school dropouts have been eliminated. Whereas manufacturing's share of the total employment in the United States was 33.1 percent in 1950, by 1989 it was down to 18.2 percent, and by 2003 it had fallen to 10.7 percent.[28] More than 3.5 million manufacturing jobs have disappeared since 2000.[29]

But even the factory jobs that remain increasingly require higher levels of education and training. Whereas only 12 percent of manufacturing workers had any college education in 1973, that number has risen to more than 36 percent.[30] Often, good-paying factory jobs are left unfilled because of a dearth of qualified workers. According to a 2005 survey by the National Association of Manufacturers, 83 percent of factory owners could not find enough qualified workers to fill openings, and 90 percent said they had a problem finding front-line employees such as machinists and technicians.[31]

In today's ultracompetitive job market, where a high school diploma is the required ticket into college and the workforce, why would so many students decide to drop out? Decades of research has shown

that "[dropping out of] high school represents a confluence of individual, social, family, cultural, socioeconomic, and institutional factors…. Dropping out is best understood as the ultimate end to a gradual process that often begins as early as school entry and through which students lose interest and significance for what schooling offers them."[32]

The decision to drop out is rarely the result of a single life event; many students exhibit academic warning signs years before they leave high school. Using longitudinal data—information about individual students' progress over time—respected researchers from Johns Hopkins University, the Consortium on Chicago School Research (CCSR), and the Parthenon Group, among others, have examined the academic history of dropouts to identify their shared academic characteristics. Students who dropped out usually had received a failing grade in core courses (especially in math or English), earned a low grade point average, or scored low on achievement tests. They were often retained in grade because they had not earned enough credits to be promoted; as a result, many were older than the other students in their class. Furthermore, as demonstrated by low attendance rates and disciplinary problems, these students were frequently not engaged in their education or aware of its importance to future opportunities.[33]

Whatever the causes, a decision to drop out of high school is a disastrous one. Among other variables, it makes no long-term financial sense—for either the students or the society in which they live.

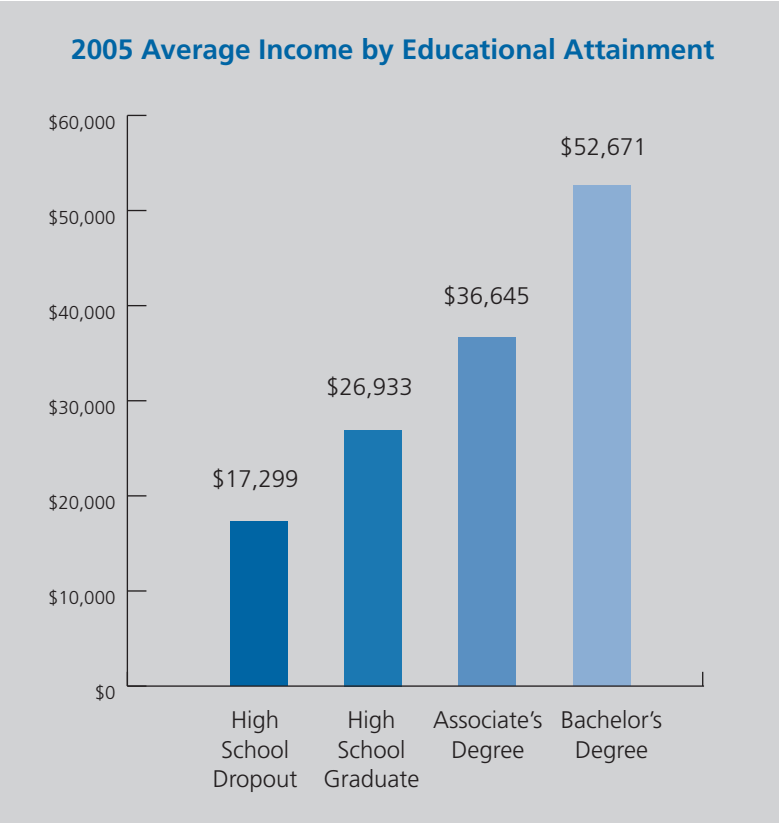
> Our real problem is the bottom 30 percent of U.S. schools, those in urban and rural communities full of low-income children.
>
> We have seen enough successful schools in such areas to know that many of those children are just as capable of being great scientists, doctors, and executives as suburban children are.
>
> But most low-income schools in the United States are simply bad. Not only are we denying the children who attend them the equal education that is their right, but we are squandering almost a third of our intellectual capital. We are beating the world economically, but with one hand tied behind our back.
>
> —Jay Matthews, *Washington Post* education reporter, writing in the Spring 2008 issue of the *Wilson Quarterly*

The Cost of the Crisis

The costs and losses associated with a secondary school system that allows one third of its students to drop out and another third to graduate without the knowledge and skills they need goes beyond the students themselves.[34] Clearly, the dropouts suffer the most direct impact. But the economy, social fabric, and security of the nation, states, and local communities are also adversely affected.

The Million-Dollar Mistake

Most high school dropouts see the result of their actions most clearly in the slimness of their wallets. The average annual income for a high school dropout in 2005 was $17,299, compared to $26,933 for a high school graduate, a difference of almost $10,000. If that high school graduate goes on to earn a bachelor's degree, he or she will earn an average of $52,671 annually. Over the course of a lifetime, a college graduate will earn, on average, $1 million more than a high school dropout. Dropping out is literally a million-dollar mistake.[35]



Source: U.S. Bureau of the Census, "Income in 2005 by Educational Attainment of the Population 18 Years and Over," Table 8 (Washington, DC: U.S. Government Printing Office, 2006), http://www.census.gov/population/www/socdemo/education/cps2006.html (accessed July 30, 2008).

The impact of students leaving high school is particularly devastating to the economy. Over the course of his or her lifetime, a single high school dropout costs the nation approximately $260,000 in lost earnings, taxes, and productivity. If the nation's secondary schools graduated all of their students, the payoff would be significant. Had the students who dropped out of the Class of 2008 stayed in school and graduated, the nation's economy would have benefited from an additional $319 billion in income over their lifetimes.[36]

But without a major improvement in the way high schools operate and teach their students, more than twelve million students will drop out during the course of the next decade—at a loss to the nation of more than $3 trillion.[37] To put that number into perspective, the fiscal year 2009 budget that President Bush proposed for the entire federal government—including defense spending, Social Security, health care, education, NASA, and everything else—was $3.1 trillion.[38] If the nation had

graduated 100 percent of its high school students ten years ago, the money the additional graduates would have put back into the economy would have covered the entire cost of running the federal government in 2009.

Appendix 1 shows the economic benefits each state could accrue over the lifetimes of just one year's dropouts if those students could be converted to graduates. The numbers vary from state to state. Vermont (at the low end) would see its economy increase by $439 million; Mississippi (near the middle) would add $3.98 billion; and California's economy (at the high end) would accrue an additional $42 billion over the lifetime of the students of each graduating class. These figures are conservative, and do not take into account the added economic growth generated from each new dollar put into the economy.

A high school dropout might gain a temporary earnings advantage over someone who is still in high school but not working, or working only part-time. But after graduation day, high school dropouts will lag behind their better-educated peers for the rest of their lives.

The Dropout to Prison Pipeline

According to "One in 100: Behind Bars in America 2008," a study by the PEW Center on the States, the United States has the largest per-capita prison population in the world (followed by Russia). As a result of the rapid growth in the number of individuals incarcerated in the United States, total state spending on corrections topped $49 billion in 2007, up from $12 billion in 1987. By 2011, continued prison growth is expected to cost states an additional $25 billion.[39]

Dropping out of school does not automatically result in a life of crime, of course. Indeed, the vast majority of individuals who leave high school without diplomas are, and remain, law-abiding citizens. High school dropouts are, however, more likely than others to be arrested or incarcerated. Far too many will spend their lives in a state of uncertainty—financial and otherwise—which unfortunately means there is an increased likelihood that they will cycle in and out of prison. A 2003 report from the Bureau of Justice Statistics found that nearly 75 percent of America's state prison inmates, almost 60 percent of federal inmates, and almost 70 percent of jail inmates had not completed high school.[40]

> On my BlackBerry, I get the major crimes that happen in this city as they happen on a real-time basis. I always say … when you find the suspect, you can be certain it will almost always be a high school dropout and/or somebody who can't read or write. There is a connection, make no mistake about it, with the dropout rate.
>
> —Los Angeles Mayor Antonio Villaraigosa, writing in the *Los Angeles Times,* August 4, 2006

Judging by these numbers, it should not come as a surprise that lower educational attainment levels increase the likelihood that individuals, particularly males, will be arrested and/or incarcerated. A study that looked at state prisoners' education levels in 1997 showed that male inmates were about twice as likely as their counterparts in the general population to have not completed high school or its equivalent. It also found that four times as many males in the general population had attended some college or other postsecondary classes than those in prison.[41]

Theories abound as to why people with more education commit less crime. To list a few:

- Someone with a high school diploma or better earns higher wages through legitimate work, thus reducing the individual's perceived need to commit a crime or raising the potential cost of crime —getting caught and being incarcerated—to unacceptable levels.
- The stigma of a criminal conviction may be greater for professional workers, who tend to have higher levels of education, than for those in lower-paying, lower-skilled jobs.
- More time spent in the classroom may play a role in instilling values that are opposed to criminal actions.
- Criminal behavior that begins during youth can continue into adulthood. By keeping adolescents in the classroom and off the streets, later criminal activity may be avoided.

Whatever the underlying causes, education is clearly related to crime prevention and the personal safety of the population.

Estimates on how likely a dropout is to be arrested vary. The Coalition for Juvenile Justice has found that "dropouts are three and a half times more likely than high school graduates to be arrested,"[42] while a more recent survey of dropouts concludes that they are "more than eight times as likely to be in jail or prison."[43] However the numbers are calculated, the larger message remains the same: individuals with lower levels of education are more likely to commit crimes and be jailed than their better-educated peers.[44]

The financial cost of crime to communities, states, and the nation cannot be overstated. It includes expenses related to medical care for victims, loss of victims' income, reduced tax revenue as a result of lost wages, and rising police payrolls and court operating budgets. Most expensive of all is the cost of incarcerating convicted criminals.

Were America to increase the number of high school graduates, it could significantly reduce the nation's crime-related costs and add billions of dollars to the economy through the additional wages those graduates would earn. Methods outlined by economists Lance Lochner of the University of Western Ontario and Enrico Moretti of the University of California at Berkeley produce a conservative estimate of the benefit: increasing the high school graduation rate and college matriculation for male students by only 5 percent would lead to combined savings and revenue of almost $8 billion each year. The benefits would vary from state to state: South Dakota would save $1.6 million, Oklahoma would save $63 million, and California would save almost $753 million.[45]

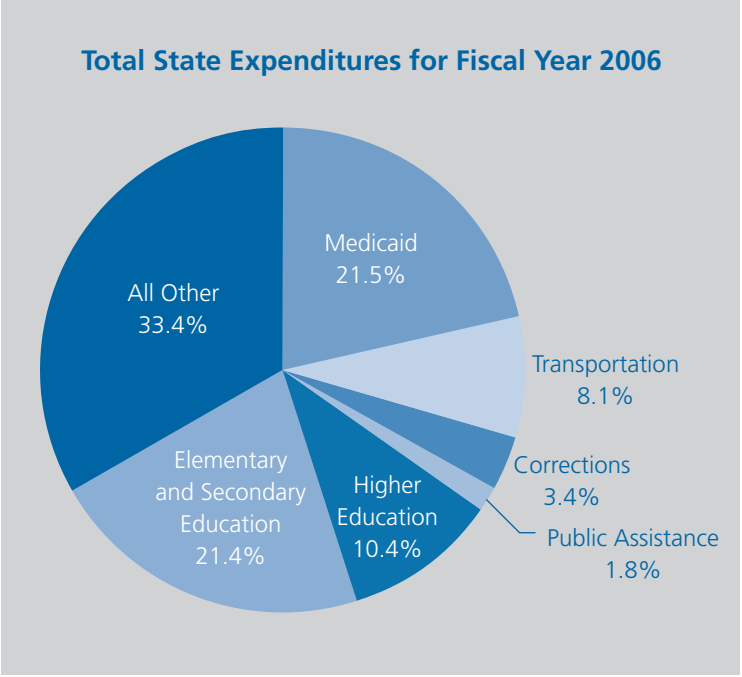
In addition to the savings directly related to crime reduction, almost $2.8 billion in additional annual earnings would enter the economy if more students graduated from high school. If an additional 5 percent of male students not only graduated but also went on to college in the same percentages as current male high school graduates, their average earnings would increase significantly.[46] The benefits, again, would vary from state to state: Wyoming would see an increase of $5 million, Massachusetts would gain $55 million, and California's economy would accrue an additional $352 million. These numbers reflect only additional wages earned, and do not include the added economic growth

produced by each new dollar in the economy or the additional tax revenues that would be produced. (State-by-state estimates of the annual economic benefits generated from crime-related savings and additional annual earnings can be seen in Appendix 2.)

Not only will an investment in education provide a better return than money spent on incarceration, it is also much cheaper. In the 2003–04 school year, the nation spent an average of $9,116 a year to educate a student in its K–12 system.[47] At the postsecondary level, one year of tuition at a four-year public college in 2003–04 cost an average of $5,231.[48] Meanwhile, the federal government estimates that it spent an average of $24,564 per inmate in 2003[49]—which means that it's cheaper to pay for four years of tuition at a public college than it is to house someone in prison for one year.

Decreasing Health Care Costs by Increasing Educational Attainment

Although spending on corrections in the aggregate adds up to a pretty hefty sum, it only accounts for an average of about 3.4 percent of a state's expenditures in a given fiscal year. In years past, states spent the largest percentage of their budget on K–12 education, but rising medical costs have changed this pattern recently, as indicated in the graph below. These costs keep going up, and absent some drastic change, there is every indication that they will continue to outpace most states' economic growth.[50] While Medicaid spending has moderated somewhat, its growth rates still exceed overall general fund spending increases.[51] And because Medicaid makes up such a large portion of state budgets, the growth rates relative to overall budget increases have a significant impact on the allocation of state spending and can squeeze spending in other areas.



Source: National Association of State Budget Officers, *Fiscal 2006 State Expenditure Report*, Washington, DC, 2007.

Health care costs incurred by states could be greatly reduced if high schools around the country graduated more students prepared for the challenges of postsecondary education and the workforce. Higher educational attainment increases a student's future income, occupational status, and social prestige, all of which contribute to improved health. Individuals with higher education also have more access to jobs that are likely to provide health care and other benefits. Almost 95 percent of employees with a college degree have employer-provided health care coverage, compared to 77 percent of employees who are high school graduates and 67 percent who are high school dropouts.[52] Individuals with lower income, less education, and lower-status

occupations and employment tend to have poorer health; raising educational levels might very well reduce health-related expenditures for the public sector, as well as for individuals.

Research has shown that each student who graduates from high school instead of dropping out will save states an average of $13,706 in Medicaid and expenditures for uninsured care over the course of his or her lifetime.[53] Savings like that add up quickly; if the approximately 1.2 million high school dropouts from the Class of 2006 had earned their diplomas, states could have saved more than $17 billion over the course of those young people's lifetimes. Furthermore, similar savings could accrue for every additional class of high school students who graduate rather than drop out. These savings would also translate into better health and improved life prospects for the nation's citizens.

Access to Health Care Correlates to Educational Attainment

Currently, the United States spends more than any other country on health care, and many Americans have access to the finest physicians and facilities in the world. However, Americans do not benefit equally from the care that is available. The disparities reflect socioeconomic patterns, but they are most closely correlated with educational attainment.[54] A variety of interrelated factors explain this relationship.

- People with lower educational attainment have less insurance coverage. Nationwide, 45.8 million people, or 15.7 percent of the population, have no health insurance at all.[55] Individuals with low levels of education are considerably less likely to have health insurance; they are also more likely to have only limited or erratic coverage, or to be uninsured for long periods of time.[56] In many states, few adults (ages eighteen to sixty-four) are eligible for Medicaid coverage, leaving millions to rely on emergency rooms and other poor (and often more expensive) health care options.

- Individuals who lack health insurance receive less medical care and have poorer health outcomes. Uninsured adults with chronic illnesses are far less likely to receive care and necessary prescriptions than insured adults.[57] These individuals are generally in worse health when they are first diagnosed with an illness, and the combination of late diagnosis and less consistent care often leads to poorer outcomes.[58] Poor health means that those without health insurance often have more difficulty finding employment, particularly higher-paying jobs with good health benefits. Because they either lack employment or earn less due to poor health, they have a harder time affording health care. As a result, their illnesses often go untreated and become severe, and they tend to die younger than do insured people.[59]

- Education leads to healthier lives. It's not just access to health insurance that yields better outcomes for better-educated people. Education also improves earning power and social status, and affects cognitive ability.[60]

Education also influences lifestyle choices, knowledge and understanding of health issues, and the health-related decisions that people make. Better-educated patients are more able to follow doctors' instructions successfully and to navigate the medical bureaucracy. They are also less likely to make bad health decisions; smoking and obesity prevalence rates are both higher in individuals with lower income and education levels. According to the 2006 National Health Interview Survey (NHIS), 30.6 percent of adults living below the poverty level are smokers, compared to 20.4 percent of individuals living at or above the poverty level. The NHIS also found that individuals with a General Educational Development (GED) diploma are nearly five times as likely to be smokers as individuals

with a college degree.[61] In prevalence of obesity, 29.4 percent of high school dropouts are considered obese, compared to 20 percent of college graduates.[62] Occupations of people with lower educational attainment are also generally more dangerous and expose workers to greater health hazards, from handling heavy machinery and chemicals to being required to work shifts that disrupt sleep cycles.[63]

The health disparities between adults with better education and those with low educational attainment are striking: less-educated individuals are more likely to die precipitately from cardiovascular disease, cancer, infection, lung disease, and diabetes, for example.[64] On average, a high school graduate lives six to nine years longer than a dropout.[65]

In an analysis commissioned previously by the Alliance for Excellent Education, Dr. Peter Muennig, assistant professor at Columbia University's Mailman School of Public Health, estimated how much states could save on health care by improving educational attainment. Specifically, Muennig examined the ways in which costs for Medicaid and uninsured care vary depending on the education of individuals.

Because educated individuals are less likely to receive Medicaid assistance and more likely to be insured, Muennig found that costs decrease with each level of educational attainment—that is, college graduates have better health and lower medical costs than high school graduates, while high school graduates have better health and lower medical costs than high school dropouts. Similarly, college graduates are far less likely to be enrolled in Medicaid or to be uninsured than are high school dropouts.[66]

While Medicaid enrollment requirements and the federal contribution differ in each state, the annual cost to states of Medicaid per enrollee is, on average, $8,045. To calculate how much could be saved by each state in Medicaid costs if high school dropouts became high school graduates, several elements must be considered, including the diminishing chance that an individual will enroll as he advances in educational attainment, as well as variations such as the level of each state's contribution to Medicaid.[67] Using this state-specific data, it is possible to estimate the amount that would be saved for each additional young person who graduates from high school. Differences in each state's contribution to Medicaid cause the lifetime savings per graduate to vary considerably by state—from a low of $7,026 in Mississippi to a high of $15,143 in Colorado, Connecticut, Delaware, Illinois, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, and New York.*

Estimating the potential savings in costs for uninsured care is a more complex process, because adult individuals may be uninsured for varying lengths of time and may have more than one period of being uninsured over their lifetimes. In addition, the care they receive while uninsured may be paid for in a variety of ways, including through federal, state, and local programs, charities, or by the uninsured individual or his or her family. A variety of options for calculating these costs is available, and Muennig used a state-by-state analysis of annual uninsured costs conducted by Kenneth Thorpe in 2005. He estimated a per-graduate cost savings over a lifetime for uninsured care, matching the

* This analysis accounts for state-by-state variation in the proportion of Medicaid paid for by the state government and the proportion paid for by the federal government. However, it does not account for state-by-state differences in eligibility for Medicaid enrollment, which can result in some variations in these calculations.

criteria used above for Medicaid cost estimates. Again, the results vary from state to state, from a low of $724 in California to a high of $1,179 in West Virginia.

Potential state savings across the lifetime of a single individual are significant; California, for example, could save $14,637 in Medicaid, and $724 in uninsured costs, for a total of $15,361 per additional graduate. According to this analysis, California's total lifetime health savings, if all students in the Class of 2005–06 had graduated from high school—as opposed to the state's 71 percent graduation rate that year—would have been more than $2.3 billion. (Savings for each state and the nation are available in Appendix 3.)

Nationally, a conservative estimate finds that the states could save more than $17 billion in Medicaid and expenditures for uninsured care nationally, a savings that could be earned for each class of students who graduate from high school rather than drop out.

Graduates: Healthy, Wealthy, and Wise

A citizenry that is not only healthier but also wealthier and wiser would benefit every state and the country as a whole. The earnings gap between high school graduates and dropouts is only part of the story. Families rely on income from salary for regular expenses, but real economic security requires accumulated wealth.[68] Household wealth, also known as assets, is broadly defined as the accumulation of investments that appreciate over time. This wealth may take various forms, including cash investments (savings, equities, 401[k] accounts, individual retirement accounts), material possessions that hold monetary value (homes, cars, small businesses), and investments in nontangible property such as degrees.

Education can be the key to higher earnings, but it is also linked to the accumulation of assets. Research by Elena Gouskova and Frank Stafford of the University of Michigan Institute for Social Research shows that, on average, households headed by a high school graduate accumulate ten times more wealth than households headed by a high school dropout.[69] Based on this finding, there would be an additional $74 billion in collective wealth in the United States if every household were headed by an individual holding at least a high school diploma. (A breakdown of exactly how much additional wealth could be accumulated in each state is contained in Appendix 4.)

Although homeownership may offer the greatest asset-accumulation opportunity for most Americans, this calculation does not include the value of housing, and therefore should be considered an extremely conservative estimate. The value of homes was excluded because mortgage holders may also have considerable debt associated with the home, and the market value of homes often fluctuates in unpredictable ways. That said, since a home is the most valuable asset most families have—and graduates are more likely to be able to afford that investment—the $74 billion figure may significantly understate the potential loss to nongraduates.

Even the conservative estimate of $74 billion, however, represents much more than just extra money in the pockets of low-income individuals. It also represents the additional financial security and opportunities that are lost—by individuals, families, communities, and states—because of an education system that is failing the students who drop out of high school each year.

Wealth is critical to the economic well-being of individuals and families for several reasons, and is the best gauge of a household's financial security and prospects.[70] While fewer than 13 percent of American households live below the official poverty line, more than a quarter live paycheck to paycheck, with negligible or nonexistent net worth.[71] Perhaps the most important benefit of wealth is the cushion that accumulated assets provide for families that face sudden unemployment, disabling medical situations, or other financial emergencies.[72] Regular income helps families pay for day-to-day living expenses; assets allow them to survive financial hardships. But 25.5 percent of all American households have insufficient net worth to sustain living at the federal poverty level for three months if their income were disrupted.[73]

The ownership of assets that can be converted to cash can make the difference between a family's continuing economic viability and bankruptcy, homelessness, or other lasting financial calamity. Families can convert assets to cash to cover living expenses, and they can borrow against assets (for example, a retirement account) at better commercial loan rates and with greater ease than those without similar assets.

Accumulated wealth has other long-term benefits. Assets can be invested in higher education, which leads to ever-increasing levels of income and wealth.[74] Families with greater wealth are also more likely to have the resources, time, and educational background to support their children's education, such as fostering the development of reading skills, participating in school activities, and encouraging their children to make ambitious academic choices.[75]

Wealth also confers other advantages that make further wealth generation more likely. Buying a house in a desirable neighborhood, starting a business, paying for higher education, or funding a comfortable retirement are all ways that families increase their long-term financial security and improve financial prospects for themselves and their children.[76]

The capacity to improve future financial status for one's children and grandchildren is the most enduring benefit that wealth offers. Young people who have resources for college costs, professional training, housing, or starting businesses have significant advantages over their peers. They are better able to absorb the opportunity costs of education or internships that strain personal finances in the short term but have powerful impacts on long-term earning power, and they have less debt as they begin their careers and start their own families. Indeed, it is in large part because wealth can be inherited that it has a greater effect on individual prosperity than income.[77]

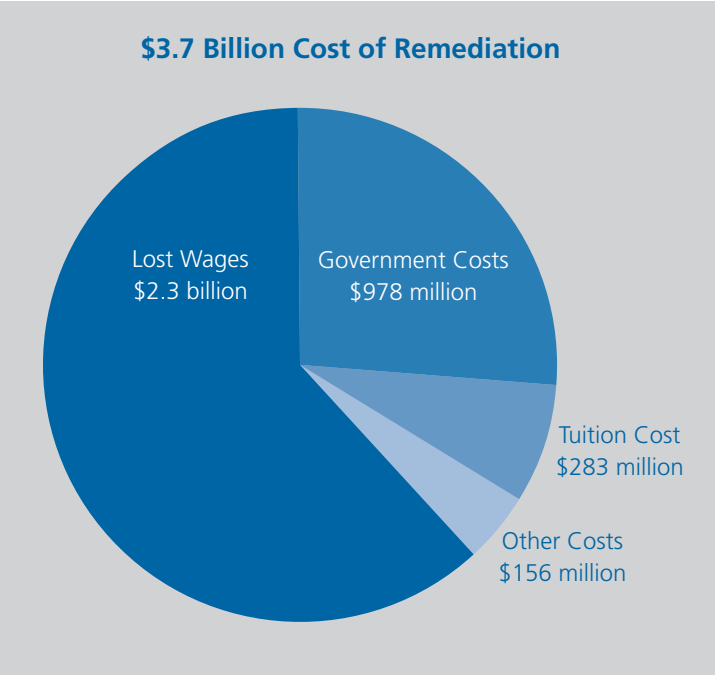
Most economists view wealth as a much more important determinant of economic status than earnings because of the long-range advantage it provides in almost every aspect of life.[78] Both wealth and poverty tend to perpetuate themselves: the effects of wealth are so significant that it can take as long as five generations for them to disappear.[79]

As individuals and families benefit from greater wealth, so do the communities in which they live. Research indicates that communities benefit from the increased homeownership, greater levels of entrepreneurship, and higher levels of educational attainment that come with asset accumulation. Communities also enjoy greater neighborhood stability, increased civic involvement and voting participation, and reduced need for public assistance.

College Remediation: A Limiting and Expensive Factor

Most Americans understand that they need education beyond high school if they are to obtain and succeed in a well-paying job in the global economy of the twenty-first century. But because too many students are not learning what they need to know to succeed in college or work while they are in high school, the nation loses more than $3.7 billion a year. This figure includes $1.4 billion to provide remedial education to students who have recently completed high school, and nearly $2.3 billion in earnings that the economy fails to realize because remedial reading students are more likely to drop out of college without a degree.[80] (Appendix 5 shows the breakdown of this national figure by state.)

However, the real price of college remediation is likely much higher than this conservative estimate, which does not include the costs of remediation for students attending public or private four-year colleges, or for older community college students. Nor does it count other, non-community-college-related remediation expenditures. There are additional expenses, such as the cost for employers who either provide training programs to teach basic skills to employees or must purchase technology that substitutes for the lack of basic skills among workers, as well as the costs of programs offered and paid for by nonprofits and government agencies, including training in adult literacy, technology, and other academic and occupational skills.[81] As one example of these types of costs, a 2000 report found that Michigan businesses spend about $222 million each year training workers who leave high school without having acquired the skills they need.[82]



Source: Alliance for Excellent Education, *Paying Double: Inadequate High Schools and Community College Remediation* (Washington, DC: Alliance for Excellent Education, 2006).

As has been noted, only about 70 percent of the students who enter high school will graduate on time.[83] As important, however, is the fact that only half of those graduates are academically prepared for postsecondary education.[84] A recent study of high school juniors and seniors taking the ACT college entrance exam confirms this; only half of the students were ready for college-level reading assignments in core subjects like math, history, science, and English.[85]

Despite these daunting statistics, the vast majority of America's high school students are optimistic about their prospects for the future, which they anticipate will include both higher education and rewarding careers. In fact, according to a recent national survey, an overwhelming 81 percent of high school students expect to attend college.[86] This is a wise goal, as more than two thirds of new jobs will require some postsecondary education[87] and 90 percent of new high-growth, high-wage jobs in the

United States require at least some postsecondary education or training.[88] Unfortunately, for every hundred ninth-grade students, only forty enroll in college immediately after high school, and only twenty-seven are still enrolled in their sophomore year. Only eighteen graduate from two-year colleges within three years, or from four-year colleges within six. [89]

When the increased demand for postsecondary education is coupled with the poor preparation many students receive in high school, colleges and universities are being forced to offer, and often require, remedial courses to large numbers of students. These classes have the sole objective of teaching precollegiate subject matter that should have been learned in high school. Across the nation, 42 percent of community college freshmen and 20 percent of freshmen in public four-year institutions enroll in at least one remedial course.[90] Community colleges already bear the greatest share of the remediation burden, and trends indicate that their responsibilities in this arena are likely to grow. Eleven states have passed laws preventing or discouraging public four-year institutions from offering remedial courses to their students, thus concentrating unprepared students in community colleges.[91]

Analyses of students' preparation for college-level work show the weakness of core skills, such as basic study habits and the ability to understand and manage complicated material. The lack of preparation is also apparent in multiple subject areas: 35 percent of college freshmen were enrolled in remedial math, 23 percent in remedial writing, and 20 percent in remedial reading.[92]

It is important to note that many students take remedial coursework for reasons having little to do with the failings of the nation's high schools. Community colleges have become a significant resource that offers opportunities to retrain laid-off workers, reeducate older students, and teach English to recent immigrants. Some of these enrollees are likely classified as "freshmen" and may be taking courses that are considered "remedial." However, about half of all community college students are under the age of twenty-five,[93] and almost one third of freshmen who take remedial courses are nineteen years old or younger.[94] Recent high school graduates are more likely to take remedial courses because higher percentages of them are pursuing bachelor's degrees, which require specified levels of preparation, than are older students. Additionally, younger students are more likely than older students to be enrolled in school full-time, and many community colleges do not require part-time students to enroll in remedial courses.[95]

Thus, the vast majority of students who take remedial courses in college do so to gain the skills and knowledge they should have gotten in high school. Most view the time, effort, and resources dedicated to remedial classes to be an additional investment in their academic futures. Sadly, this is often not the reality, since students who need remediation are more likely to leave college without a degree.

A number of components comprise the high price that colleges, students and their families, and taxpayers pay to get students ready for postsecondary education. Colleges must pay faculty to teach the remedial courses; provide the classroom space; and supply a variety of support services, including counseling, administrative support, parking, facilities maintenance, and so on. Often, because of trade-offs required by limited space and resources, schools must reduce the numbers of nonremedial courses offered to students—courses that would provide greater benefits to the community and its economy.

Through tuition, students and their families directly pay only about one fifth of the overall cost of remediation. That relatively small portion totals approximately $283 million in community college tuition alone, but it is not the only cost. Another factor is students' time, which could be more productively spent taking college-level courses that would advance their goals and increase their earning potential. And because many colleges offer no credit for remedial courses, students are expending energy on study that, while necessary, delays the quest for a degree.

Taxpayers provide about a billion dollars a year to cover the direct and indirect instructional costs of remedial courses, through the subsidies that community colleges receive from state and local governments. These tax dollars are in addition to the taxes allocated to support communities' secondary schools; taxpayers are essentially paying twice for the coursework and skill development students are expected to receive in high school.

Remediation Is a Poor Substitution for Preparation

Individual states, and the nation as a whole, are not only paying to academically remediate thousands of young adults; they are also facing future financial loss. Students who need remediation are more likely to leave college without a degree, and thus more likely to earn less than if they had gotten a college diploma. Research shows that the need for remedial reading is the leading predictor that a student will drop out of college. While 58 percent of students who take no remedial education courses earn a bachelor's degree within eight years, only 17 percent of students who enroll in a remedial reading course receive a BA or BS within the same time period.[96]

The wages of individuals who have taken some college courses average about $20,171 less per year than those of college graduates.[97] Therefore, when students enter but do not complete college, they lose future income, government takes in less tax revenue, and state and national economies are deprived of the additional earnings that would make them stronger.

The Benefits of Diplomas Over Dropping Out

Dropping out is a decision that affects not only the student, but also the economies of each state and the nation. Lower tax revenue is perhaps the most obvious consequence of higher dropout rates, but state and local economies suffer further when they have less-educated populaces, as they find it more difficult to attract new business investment. Simultaneously, these entities must spend more on social programs, incarceration costs, and health care when their populations have lower educational levels.

High school graduates, on the other hand, provide both economic and social benefits to their communities. In addition to earning higher wages, resulting in attendant benefits to local, state, and national economic conditions, high school graduates live longer, are less likely to be teen parents, and are more likely to raise healthier, better-educated children. In fact, children of parents who graduate from high school are themselves far more likely to graduate from high school than are dropouts. High school graduates are also less likely to commit crimes, rely on government health care, or use other public services such as food stamps or housing assistance. Additionally, high school graduates engage in civic activity, including voting and volunteering in their communities, at higher levels.

Researchers Henry Levin, Clive Belfield, Peter Muennig, and Cecilia Rouse estimate that a dropout converted to a graduate would yield a public benefit of $209,000 in higher government revenues and lower government spending. ("These are gross benefits and do not account for what it costs for the necessary educational interventions to raise the graduation rate or fund college programs contingent on graduation," they write.)[98] They note that while it would take an overall investment of $82,000 per student for educational interventions and additional years of school attendance leading to graduation, that amount could easily be offset by the public benefit. In total, they identify a net economic advantage of $127,000 for each additional high school graduate, a benefit two and a half times greater than the initial investment.[99]

Reforming the nation's high schools will not be an easy process, and the kind of comprehensive school reform needed to ensure that all students have the opportunity to succeed and graduate prepared for the future is not simple. But in an increasingly global economy, American secondary schools and their students must achieve at increasingly higher levels. Ensuring that all secondary students are prepared to succeed in college and work is a giant step in the right direction, and will benefit individuals and society for decades to come.

Globalization Increases the Challenge

Americans have been hearing warnings for the last twenty-five years about how the United States' dominance in the world's economy is coming to an end because of the country's poor educational performance. But as the warnings have been issued, the Dow Jones Industrial Average has climbed to record highs, U.S. gross domestic product has continued to grow, and the nation has enjoyed the longest economic expansion in its history. So why should Americans listen? Why should they care? Why should they urge policymakers and civic leaders to act to improve schools and educational outcomes for students? To truly understand this debate, it is helpful to look backward before looking forward.

A Brief History

On August 26, 1981, U.S. Secretary of Education T. H. Bell created the National Commission on Excellence in Education and charged it with examining the quality of education in the United States. The commission was told to pay particular attention to teenage youth, and it did so by focusing on American high schools. In April 1983, it issued *A Nation at Risk: The Imperative for Educational Reform*, which began with these lines:

> Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. This report is concerned with only one of the many causes and dimensions of the problem, but it is the one that undergirds American prosperity, security, and civility. We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur—others are matching and surpassing our educational attainments.[100]

In September 1989, President George Herbert Walker Bush became only the third president to convene the nation's governors. (Theodore Roosevelt called the governors together in 1908 to discuss conservation and the ravaging of forests, and Franklin Delano Roosevelt convened them in 1933 to deal with the Great Depression.) President Bush called the meeting to focus on education, because, in his words, inadequate education threatened to undermine "the very leadership position of America in the next century."[101] The group agreed on a set of six objectives that the nation should meet by the year 2000:

- Every child would start school "ready to learn."
- The high school graduation rate would reach 90 percent.
- The performance of students in "critical subjects" would be assessed in grades four, eight, and twelve.
- American students would rank first in the world in science and mathematics.

- Every adult would be a "skilled, literate worker and citizen."
- Every school would be drug-free and offer "the kind of disciplined environment that makes it possible to learn."[102]

"Ambitious aims?" Bush asked in his 1990 State of the Union Address. "Of course. Easy to do? Far from it. But the future's at stake."[103]

In June 1990, the first Commission on the Skills of the American Workforce warned that economic globalization would send low-skilled jobs to countries where the price of low-skill labor was the cheapest. It advised the nation to abandon this kind of work and focus on educating students and workers to achieve at high levels, because only countries with highly skilled workforces could successfully compete in the global economy.[104]

The goal of improving educational outcomes for all of America's students was reenergized in 2001 with the bipartisan renewal of the Elementary and Secondary Education Act of 1965—in this incarnation called the No Child Left Behind Act. Urging its passage, President George W. Bush said: "Today, good jobs demand math skills, technical knowledge, and fluent reading. The progress of our economy and the future of our children starts in the classroom. And that's why education must be our nation's highest priority."[105]

In 2006, the *New* Commission on the Skills of the American Workforce published a report acknowledging that the first commission had not anticipated the trend of outsourcing or automating of higher-paying jobs that demand high-level skills. The second report warned that if the nation continues on its current course, and the "number of nations outpacing us in the education race continues to grow at its current rate, the American standard of living will steadily fall relative to those nations, rich and poor, that are doing a better job. If the gap gets to a certain—but unknowable—point, the world's investors will conclude that they can get a greater return on their funds elsewhere, and it will be almost impossible to reverse course."[106]

But the nation's policymakers and educators have been trying to reverse course for twenty-five years, to no avail. Instead of approaching the 90 percent goal set by the 1989 education summit, the nation's graduation rate has remained flat, going from 72 percent in 1991 to 71 percent in 2002.[107] Even more problematic is the fact that nations in the rest of the world are getting better at educating their students to high standards, are improving faster, and are passing the United States in a variety of measurements of educational achievement and attainment.

Changes in the International Educational Landscape

Forty years ago, when an individual did not necessarily need a high school diploma to get a good job, the United States led the world in producing high school graduates. A full 86 percent of fifty-five- to sixty-four-year-olds in the United States have a high school diploma, well above the 54 percent average of the twenty-nine member countries that make up the Organisation for Economic Co-operation and Development (OECD), and 3 percentage points higher than the next closest country, the Czech Republic.[108]

But much has changed. Today, when a high school diploma is the minimum needed to qualify for most good-paying jobs, the U.S. advantage—which the OECD credits to what it calls the "first-mover advantage," which the nation gained because of massively increasing enrollments after World War II—has started to slip, as other countries have improved at a faster rate. For example, 87 percent of Americans aged twenty-five to thirty-four have at least a high school diploma, but that percentage is only good enough to rank the United States tenth in the world. In 2005, the U.S. high school graduation rate ranked eighteenth of twenty-three OECD member countries.[109]

Imagine that these high school graduation rate rankings were America's results at the Olympics. Would the nation tolerate such a dismal performance? In the 2004 Summer Olympics, the U.S. men's basketball team boasted world-class stars such as LeBron James, Tim Duncan, and Allen Iverson, and was thought to be a shoo-in for the gold medal. When it left with only the bronze, newspaper articles called the team's performance a "humbling two weeks in Athens" and an "Olympic low point for U.S. men's basketball." [110] What would the commentators have had to say if the basketball team had come in eighteenth?

Stu Jackson, the chairman of the U.S. Senior Men's National Committee at the time, wasn't as critical, noting that the team's performance was not "an indictment on the U.S. team" but rather proof that the "rest of the world is getting better."[111] The same is true in education. In the race to produce a workforce prepared for the demands of a global economy, the United States has struggled to keep up with its international counterparts. This slippage has occurred not because the United States is necessarily doing worse, but because other countries have improved at faster rates. In Korea, for example, approximately 97 percent of individuals aged twenty-five to thirty-four possess a high school diploma—compared to only 35 percent in the 1950s.[112]

It's not just in high school graduation rates that the United States is falling behind. The nation is also losing ground in college graduates—again, not because U.S. college graduation rates are falling, but because rates have risen so much faster in other countries. In 2005, 37 percent of individuals in the United States aged fifty-five to sixty-four had graduated with a college degree, ranking the nation first in the world. Only Canada, at 36 percent, was close behind. But among more recent college graduates, those individuals aged twenty-five to thirty-four, the United States, at 39 percent, is only marginally higher. Meanwhile, several other countries have caught up and surpassed the United States, including Canada, Japan, and Korea. As a result, the United States has fallen from first place for higher education attainment levels among fifty-five- to sixty-four-year-olds, to fourth place among thirty-five- to forty-four-year-olds, and to tenth place among twenty-five- to thirty-four-year-olds.[113]

And, rather than meeting the goal set by the first President Bush and the nation's governors to be first in the world in science and mathematics, the United States has fallen further behind. In 2000, American fifteen-year-olds ranked fourteenth in science literacy on the Programme for International Student Assessment (PISA). In 2003, American students had fallen to a tie for nineteenth; in 2006, they ranked twenty-first. A similar free fall occurred in mathematics. In 2000, American fifteen-year-olds ranked eighteenth; by 2006, they had fallen to twenty-fifth.[114]

Concerned Without Cause?

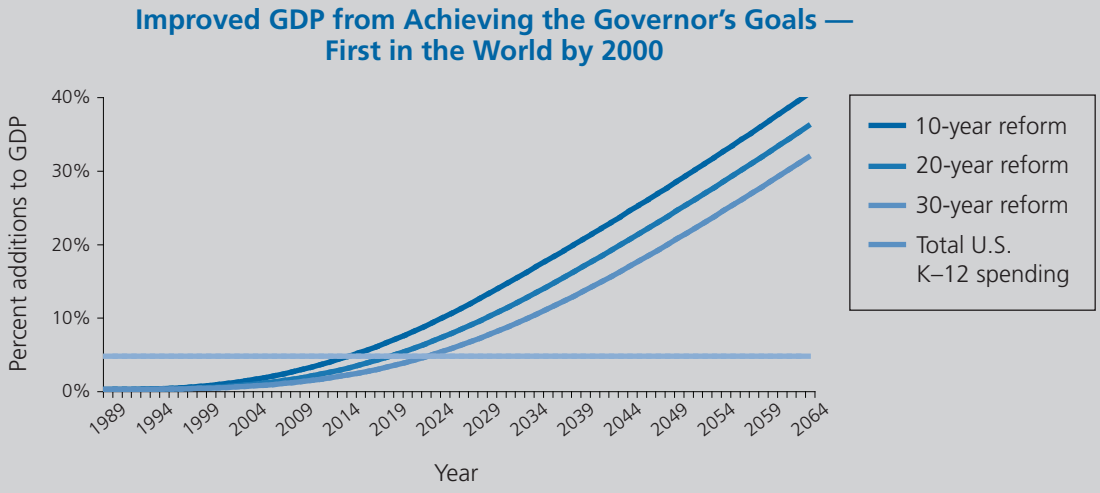
Detractors have argued that international rankings on tests are mere smoke and mirrors and not a true measure of a nation's ability to remain competitive. As evidence, they may point to a 2007 report from the World Economic Forum that places the United States first in its Global Competitiveness Index and says that the United States is "arguably the country with the most productive and innovative potential in the world."[115]

While that may be true today, the report also notes troubling signs of weakness that do not bode well for the future. For instance, it ranks the United States thirty-fourth in health and primary education. In addition, it says that "an inadequately educated workforce" is the fifth most problematic factor for doing business in the United States, just a tenth of a point behind inflation (tax rates, tax regulations, and an inefficient government bureaucracy are numbers one through three).[116]

Additionally, economic research has found links between higher levels of cognitive skill—defined as "the performance of students on tests in math and science"—and economic growth. Specifically, Eric Hanushek, Dean Jamison, Eliot Jamison, and Ludger Woessmann write in the Spring 2008 issue of *Education Next* that countries with higher test scores experience far higher growth rates. In their research, they have found that a highly skilled workforce can raise economic growth by about two thirds of a percentage point every year.[117]

The Economic Benefits of Reform

Making American high school students the best in the world in math and science would have had a substantial impact on the nation's economic growth, enough to pay for the K–12 education system by 2015.



Note: K–12 education expenditures are assumed to be constant at the level attained in 2005. These data show that economic benefits from a 1989 reform that raised the U.S. to the highest levels of test performance would cover the cost of K–12 education by 2015.

Source: *Education Next* 8, no. 2 (2008).

Hanushek and his colleagues also analyzed what it would mean for the nation's economic growth if the United States had met the goal that President Bush and the nation's governors set in 1989 for the global ranking in math and science. They found that if this goal had been met by 2000, the nation's gross domestic product would have been 4.5 percent greater by 2015. Such an increase would equal the total amount the United States currently spends on K–12 education.

"In other words," they write, "had that money effectively raised cognitive skills by the 50 test points that would have brought the United States close to world leadership, the economic returns to the country would probably have been enough to cover the entire cost of education in 2015 and after."[118]

They also note that even a reform that takes effect in twenty years (instead of the governors' ten-year goal) produces a real GDP that is 36 percent higher than it would be if there were no change in the level of cognitive skills.

Remaining Economically Strong and Competitive in a Changing World

But the questions remain: If America was in danger of losing its competitive edge twenty-five years ago when *A Nation at Risk* was published, how is it still a world leader today? And why should its citizens be concerned about the future?

Some believe that the United States' freer labor and product markets, limited government regulation, and lower levels of government involvement in the operation of the economy tends to "encourage investment, permit the rapid development of new products and activities by firms, and allow U.S. workers to adjust to new opportunities."[119] Others believe that the United States has benefited from its past investments and status as the world's leader in educational attainment. As Hanushek and his colleagues point out, over the course of the twentieth century the "U.S. pushed to open secondary schools to all citizens. Higher education expanded with the development of land grant universities, the GI Bill, and direct grants and loans to students."[120] They add that the nation's higher education system is a "powerful engine of technological progress and economic growth in the U.S." and, by most measurements, U.S. colleges and universities rank at the very top in the world.[121]

Hanushek and his colleagues argue that it is the strength of the nation's higher education system, as well as its economy, that offers hope for the future. But they also point out that the nation's K–12 ranking should "spark concerns about the long-term outlook for the U.S. economy, which could eventually have an impact on the higher-education system as well."[122]

The United States continues to enroll more international students in its colleges than any other country; at 22 percent, it is almost twice as popular as the second-place country, the United Kingdom, which has 12 percent.[123] However, the United States has begun to lose some of that market share: since 2000, the U.S. share of international students has declined by 4 percentage points, from 26 percent to 22 percent.[124]

As Hanushek and his colleagues point out, the United States could be challenged in several areas where it has held an advantage in the past. "Other countries are doing more to secure property rights and open their economies, which will enable them to make better use of their human capital. Most

obviously, the historic advantage of the U.S. in school attainment has come to an end, as half of the OECD countries now exceed the U.S. in the average number of years of education their citizens receive. Those trends could easily accelerate in the coming decades."

Another challenge for the United States is the pending retirement of the baby boom generation. Between 1950 and 2000, the civilian labor force grew by nearly 79 million (from 62.2 million to 140.9 million), an increase of 1.6 percent per year.[125] However, the Bureau of Labor Statistics projects that between 2000 and 2010 the labor force will slow to an increase of 1.1 percent per year, and after the retirement of the baby boomers between 2010 and 2020, labor force growth will slow to 0.4 percent per year.[126] As boomers retire, the nation will lose much-needed skills and significant amounts of institutional knowledge.[127]

As the size of the labor force increases at slower rates, the nation's gross domestic product is also expected to grow more slowly. The Bureau of Labor Statistics projects that GDP will grow at an average annual rate of 2.8 percent between 2006 and 2016, slower than the 3.1 percent increase that was achieved over the previous ten-year period.[128]

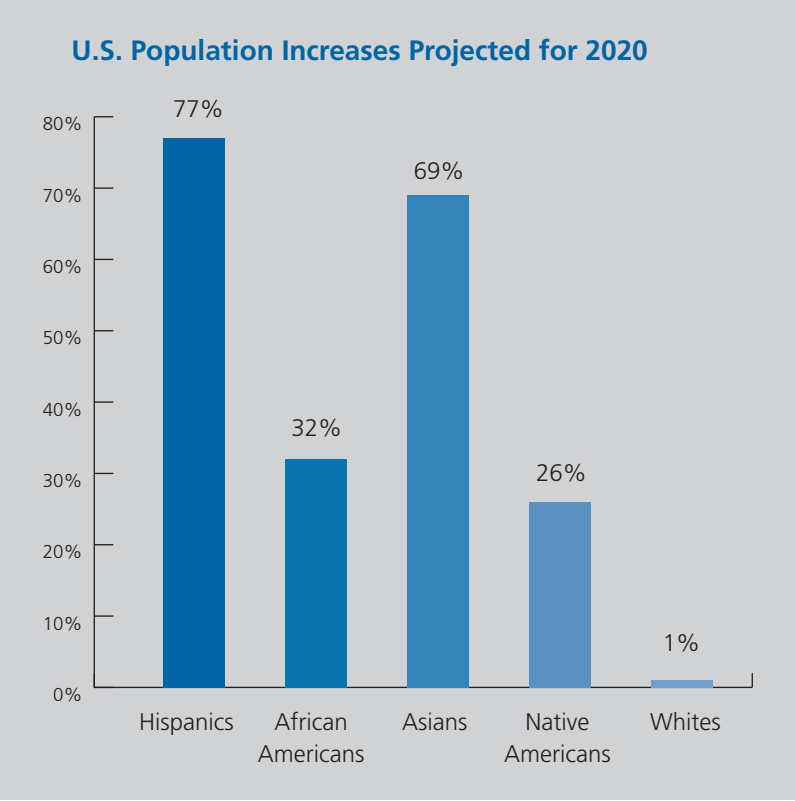
Over the next twenty-five years, the world will continue to change, and jobs will require even more levels of education. Indeed, according to *America's Perfect Storm*, a 2007 report from the Educational Testing Service, nearly half of all of the projected job growth over the next twenty-five years will be concentrated in occupations associated with higher education and skill levels. "This means that tens of millions more of our students and adults will be less able to qualify for higher-paying jobs," the report reads. "Instead, they will be competing not only with each other and millions of newly arrived immigrants but also with equally (or better) skilled workers in lower-wage economies around the world."[129] And the pending retirement of the baby boom generation will create even more challenges, as decreases in the rate of growth in the workforce and GDP will accompany these mass retirements.

Demography as Destiny?

Another factor that influences the future of the U.S. economy is increasing racial and ethnic diversity. In the coming decades, the labor force is expected to become even more diverse than it is now, as minorities, with higher population growth through immigration, higher fertility rates, and higher labor force participation rates, are projected to expand their share of the workforce.[130]

In 2007, the U.S. Census Bureau estimated that there were slightly more than 299 million people in the United States. Of that total, 66 percent were white, 15.1 percent were Hispanic, 12.3 were African American, 4.3 were Asian, and 0.8 percent were Native American.[131] But the country is becoming increasingly more diverse.

The Census Bureau projects that there will be 336 million people living in the United States in 2020; the same projections show that the minority population will grow at a considerably faster pace than the overall population (see chart to the left). By 2020, the adult population aged twenty-five to sixty-four is expected to be 63 percent white, 17 percent Hispanic, 13 percent African American, 6 percent Asian, and 1 percent Native American.[132] In 2050, Hispanics are projected to make up 29 percent of the population, African Americans will remain at about 13 percent, Asians will make up 9 percent, and whites will make up 47 percent.[133]



Source: U.S. Census Bureau, "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin," Summary Table 1a, http://www.census.gov/ipc/www/usinterimproj/ (accessed August 17, 2006).

While 70 percent of the entire population of American high school students graduate in the expected four years, the figures are much lower for minority populations, with only 57.8 percent of Hispanic, 55.3 percent of African American, and 50.6 percent of Native American students graduating on time, compared to 77.6 percent of white students.[134] If minorities do become a larger percentage of the population, and if their low graduation rates remain the same, the national graduation rate will begin to fall. Already, minority students make up more than half of the nation's dropouts, even though they account for less than half of the nation's total public school population.[135]

The average graduation rate isn't the only measurement likely to decline. Over time, as more-educated workers cycle out of the workforce and are replaced by less-educated workers, the nation will see a 5 percent decline in the average levels of literacy and numeracy in the working-age population.[136]

Additionally, a 2005 report from the National Center for Public Policy and Higher Education argues that the United States could lose billions of dollars in personal income during this transition. "If the educational gaps remain as they are, then personal income per capita in the United States is projected to decline from $21,591 in 2000 to $21,196 in 2020—a drop of $395 or 2 percent. In contrast, according to the Bureau of Economic Analysis, personal income per capita had grown 41 percent nationally during the two decades prior to 2000."[137]

If the status quo persists, nearly all states are likely to see an increase in the percentage of their residents without a high school diploma. According to the National Center for Public Policy and Higher Education, states that are projected to have the highest growth in minority populations can expect to see even more residents without a diploma, which translates into lower earnings for the individual worker and less tax revenue for the state. For example, the projected decline in personal income per capita from 2000 to 2020 is $662 in Colorado, $1,182 in New York, and $2,475 in California.[138]

Because the country's economic strength is inextricably tied to the education level of its citizens, American high schools will need to significantly increase the percentage of minority students who receive a high school diploma, or risk weakening the nation's economic condition further and with increasing rapidity.

Minority Students Poorly Served by Schools

African American, Hispanic, and Native American students are less well served by the current American public education system than are their nonminority peers. For example:

- Nearly half of the nation's African American students and nearly 40 percent of Latino students attend dropout factories, compared to only 11 percent of white students.[139]
- Schools that serve high concentrations of low-income students (who are often disproportionately minority) have three times as many uncertified or out-of-field teachers teaching English and science as do higher-income schools.[140]
- In the thirty-one states that currently educate 60 percent of all minority children in the United States, school districts with the highest minority enrollments receive fewer resources than those with lower minority enrollments.[141]

The U.S. Department of Labor reports that nearly 90 percent of new high-growth, high-wage occupations will require at least some postsecondary education,[142] a figure that will hurt minorities disproportionately. Just 11 percent of all college freshmen are African American, and 7 percent are Hispanic, even though those populations make up 14 percent and 17 percent, respectively, of the eighteen-year-old population.[143] Furthermore, while the minority population enrolled in four-year colleges is low, its completion rate is even lower. In 2005, just 40.5 percent of African American students and 47 percent of Latino students who were enrolled in college graduated within six years, compared to 59.5 percent of white students.[144]

Minority Population Growth: The Need for Increased Educational Attainment

Individuals' potential contributions to the economy increase in accordance with their educational attainment; for each student who does not graduate from high school, does not enter college, or does not complete college with a degree, the economy suffers. If the current graduation rate gap between white and minority students were eliminated, state and national economies would benefit significantly.

Patrick Kelly, a researcher at the National Center for Higher Education Management Systems, has found that because minority students graduate at such low rates from high school and therefore go on to each successive level of education in lower proportions, educational attainment rates for the U.S. population can be expected to decrease as the minority population grows. Looking at the decade from 1990 to 2000, Kelly found that gaps in educational attainment between white students and their Hispanic, African American, and Native American peers widened, especially among males. The percentage of male Hispanic adults ages twenty-five to thirty-four with an associate's degree or higher, for example, declined by 1.8 percentage points during the 1990s.[145]

If past trends are accurate predictors of the future, Kelly estimates that the percentage of adults ages twenty-five to sixty-four with a high school diploma or higher will decrease by 2.5 percentage points from its current level by 2020. But if minority graduation rates can be brought in line with those of white students by that time, the educational attainment of the overall population will increase.

Higher Educational Attainment Equals Greater Earnings

Educational attainment can influence economic growth in a variety of ways; the most obvious is its direct correlation to earnings potential, as discussed earlier. If the U.S. education system is able to raise minority high school graduation rates to the current level of white students, and if these new graduates go on to postsecondary education at similar rates, these young adults will not only be better educated, they will also be earning at higher levels. As a result, the states in which they live, as well as the nation as a whole, will be the economic beneficiaries.

Additional analysis conducted by Patrick Kelly paints a dramatic picture of these potential benefits. Using Census projections of the demographic composition (i.e., age, race, and ethnicity) for each state in 2020, Kelly and the Alliance for Excellent Education calculated the potential earnings in each state if minority groups were graduating from high school and completing postsecondary education at the same rates as whites are now.

Results vary significantly by state because the Census Bureau anticipates dramatically different demographic patterns across the nation. For example, if high school graduation and college completion rates in California—a large state with an increasing Hispanic population—remain stagnant, 479,806 of the state's Hispanic residents between the ages of twenty-five and sixty-four will hold a bachelor's degree in 2020; however, if rates can be brought to parity with those of whites, 2,034,047 Hispanic adults in the state will possess this credential in 2020.

Thus, if California can significantly improve graduation rates, and if its population profile in 2020 matches Census projections, the state stands to gain a staggering additional $101,596,190,713 in earnings and productivity.

Nationwide, if high schools and colleges are able to raise the graduation rates of Hispanic, African American, and Native American students to the levels of white students by 2020, the potential increase in personal income across the nation would add, conservatively, more than $310 billion to the U.S. economy. (The national and state-specific findings are presented in Appendix 6.)

Conservative Projections

In some states the projections by the U.S. Census Bureau significantly underestimate the growth of some populations, especially Hispanics. North Carolina, for example, currently has nearly 196,000 more Hispanic adult residents than the 1990 Census data predicted. California already has 320,000 more Hispanic adults.[146] If this level of growth among minority groups continues, the implications of current achievement gaps—and the potential benefits of closing them—will be far greater than the projections presented in this report. Even without this projected growth, totals for each state add up to big gains for the nation as a whole.

Additionally, minority workers in the United States typically earn less than their nonminority peers even when their educational levels are the same. Projected income levels in this analysis are based on the assumption that these income disparities will be unchanged by 2020, but if minority earnings were equal to those of whites at the same education levels, the projected gains would be higher. Therefore, the estimated gains in income that would be recognized by states and the nation are very conservative.

The Key to the Future: A Meaningful High School Diploma

The educational attainment levels of a country provide a way to gauge the value of its human capital, an important economic resource the United States cannot afford to squander in this age of increasing globalization. The United States currently ranks eighteenth among developed nations in high school graduation rates. If attainment levels for minority students decline as projected, the country's economic standing will likely fall as well. Increasing graduation rates for all young people is the key to reversing this trend.

Every year, more than four million students enter the ninth grade in America.[147] Over the next four years, a third of these students will drop out before attaining a diploma; another third will graduate without having gained the skills and knowledge necessary to succeed in work or postsecondary education. The nation cannot afford to allow this trend to continue. The opportunities these young people will miss throughout their lives will have cumulative costs for them as individuals, and also represent a significant lost opportunity for the country.

There is a general understanding of the importance of closing the nation's educational achievement gap, but less recognized is the fact that the segment of the population that is the least well educated is also the fastest growing. Unaddressed, this circumstance alone will mean significant reductions in the knowledge and skill levels of the U.S. workforce. It will also result in dramatically lower levels of personal income, leading to a reduced tax base for the nation and the states. The stunning potential economic benefit of turning life around for academically underserved youth through improved schooling should be a wake-up call about the importance of reforming America's high schools now; the nation truly needs the economic and social contributions these young people can make.

For example, retired individuals who receive Social Security checks are supported by individuals who are employed. In 1950, the worker-to-beneficiary ratio was 16.5 to 1. Today it is 3.3 to 1, and it will fall to 2 to 1 within the next forty years. At this ratio, the Social Security Administration says that there will not be enough workers to pay scheduled benefits at current tax rates, meaning that the payroll tax would have to be increased if no other action is taken prior to that time.[148]

Solutions to the Crisis Do Exist

This report has focused primarily on the dropout crisis and the impact it has on both individuals and the economies of the nation, states, and local communities. It has also noted that a large number of the nation's dropouts come from a relatively small number of high schools. But while there are many high schools across the country that are serving their students well, even schools with relatively high graduation rates sometimes fail to adequately educate specific subgroups of their students.

The good news is that there are also high schools throughout the country that are raising achievement levels and increasing the options available to students who would otherwise drop out or just get by. But there are still too few of these successful schools. And although the public has become increasingly aware of the sorry state of the American secondary educational system in general and the dropout

crisis in particular, policymakers, particularly at the federal level, have only recently begun to focus on the issue.

But knowledge is growing, and research and proven practice are providing the lessons that educators, policymakers, and others need to move forward toward effective reforms that will benefit all students and have a lasting and positive impact on America's economy and global competitive position. At the same time, investments in the collection and use of data to improve policy and practice are beginning to provide the information that is critical to targeting resources and interventions appropriately and effectively.

The realities of global competitiveness, the rapidly diminishing prospects of those students whose high schools fail to prepare them for college and work, and the resulting widening opportunity gap all make high school reform an imperative from economic, national security, and civil rights perspectives.

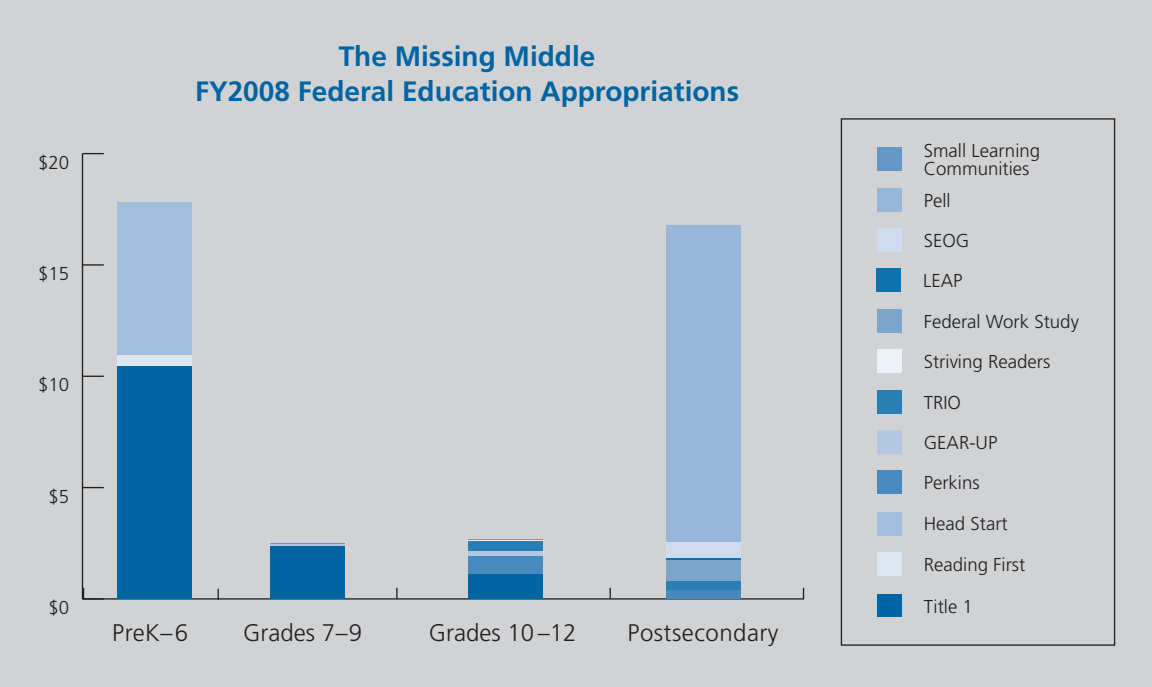
Investing Today for a Payoff Tomorrow

National problems require national solutions, and the crisis in America's high schools needs the attention and leadership of the country's federal policymaking community, as well as action at the state and local levels. There is a long history of federal support for programs designed to increase the nation's economic condition and to improve the equitable distribution of opportunity among its citizens. Two of the most successful of these were the G.I. Bill, which allowed millions of World War II veterans to earn college degrees and buy houses, and the Elementary and Secondary Education Act, which was passed as part of the War on Poverty in the 1960s.

The problem is not just the responsibility of the federal government, of course. And over the past decade, states, communities, philanthropists, the business community, and civic organizations have joined with local schools and school districts to take on a growing role in working to improve America's high schools. Their efforts must be supported and encouraged by policies and funding that are part of a national movement to raise graduation rates and achievement levels for all students. Particularly as the federal government considers stimulus packages to jumpstart what has become an alarmingly stagnant economy, it should consider the idea that the best stimulus package would be one that significantly raises graduation rates.

Unfortunately, there is currently little federal investment in the nation's middle and high schools targeted to ensure that students get the support they need throughout their educational careers. Historically, the federal government has chosen to concentrate on the bookends of the education system—the early and postsecondary years. Federal funding for grades pre-K–6 totals nearly $18 billion, while funding for postsecondary education, not including student loan spending, totals almost $16 billion. Funding for grades 7–12 is only roughly $5 billion, as noted in the graph on the next page.

There is no disagreement about the fact that early education programs improve student achievement, especially in the lower grades, or that postsecondary education and training are critical. But students need support throughout the education continuum if they are to graduate prepared to succeed in postsecondary education and the modern workplace.



Sources: U.S. Department of Education, Fiscal Year 2008 Congressional Action table, http://www.ed.gov/about/overview/budget/budget08/08action.pdf (accessed on July 28, 2008); U.S. Department of Health and Human Services, "Budget in Brief: Fiscal Year 2009," http://www.hhs.gov/budget/09budget/2009BudgetInBrief.pdf (accessed July 28, 2008).

Money alone cannot fix the nation's high schools. Indeed, more federal dollars without systemic reform will just make a dysfunctional system more expensive. But targeted new investments and changes in the way that funds are used are needed to effectively reform and improve schools and student achievement.

The critical first step is for the nation to set the right goal for America's high schools: to graduate all students prepared for success in the twenty-first-century global economy. Meeting this goal requires a common set of rigorous, internationally benchmarked standards anchored in the skills and knowledge that students need to succeed in postsecondary education and work, and which are aligned with assessments, curricula, and other tools that help get students achieve to those standards. It also requires a uniform graduation rate that ensures that schools know which students are graduating, and an accountability system that counts graduation and achievement as equally important measures of high school success. Such a system can help to identify which high schools are not succeeding, and leverage data and resources through states and districts to turn around or shut down the lowest-performing high schools.

In order to improve low-performing high schools, it is critical to provide students with the academic and other supports they need to succeed, including a significant focus on literacy throughout the K–12 years, since reading is the cornerstone upon which all other academic success is built. Currently about two thirds of eighth graders read below grade level, making it virtually certain that they will struggle in high school. Adolescent literacy and other research-based and data-driven approaches must be used to make all high schools perform well.

The nation also needs a significant innovation initiative that will promote research and develop the next-generation practices and policies that ensure all students can succeed. In this way, major new federal investments can leverage systemic changes and ensure that the proper resources are available.

The time to act is now. Without systemic reform, prospects for the nation's economic prosperity will be severely damaged; today's dropouts and undereducated graduates will become tomorrow's poorly educated workers, who will struggle to find a job and support their families. Instead of an education system that ensures that every child is a high school graduate prepared for college and success in life, the nation will be left with middle and high schools that typify the old adage, "You get what you pay for."

Learn more about the crisis in America's high schools, ways to improve America's secondary schools and outcomes for their students, and how federal policy change can better support systemic, comprehensive secondary school improvement, by visiting the Alliance for Excellent Education's website at www.all4ed.org.

Appendix 1

Estimated Additional Lifetime Income if High School Dropouts Graduated with Their Class in 2007–2008*			
State	Estimated Graduation Rate (2004–2005)	Projected Number of Nongraduates for the Class of 2008	Total Lifetime Additional Income if Dropouts Graduated
Alabama	61.3%	24,985	$6,496,220,352
Alaska	67.6%	3,865	$1,004,974,141
Arizona	73.3%	19,852	$5,161,504,766
Arkansas	73.2%	10,260	$2,667,523,066
California	70.1%	161,918	$42,098,598,750
Colorado	74.2%	16,640	$4,326,288,281
Connecticut	78.1%	9,764	$2,538,616,133
Delaware	60.1%	4,271	$1,110,566,133
District of Columbia	57.6%	1,937	$503,556,809
Florida	60.8%	97,499	$25,349,857,813
Georgia	58.1%	59,510	$15,472,691,406
Hawaii	67.4%	5,536	$1,439,394,404
Idaho	76.6%	4,954	$1,288,128,105
Illinois	76.7%	41,068	$10,677,615,000
Indiana	73.6%	22,920	$5,959,132,969
Iowa	82.8%	7,033	$1,828,505,479
Kansas	74.3%	10,043	$2,611,071,328
Kentucky	71.5%	16,160	$4,201,578,164
Louisiana	54.7%	26,520	$6,895,070,508
Maine	77.2%	3,814	$991,749,688
Maryland	73.6%	21,490	$5,587,513,750
Massachusetts	74.7%	16,298	$4,237,514,023
Michigan	70.5%	45,305	$11,779,231,953
Minnesota	78.1%	15,105	$3,927,296,445
Mississippi	61.8%	15,322	$3,983,658,301
Missouri	76.5%	18,337	$4,767,669,258
Montana	75.7%	3,191	$829,555,073
Nebraska	79.6%	5,131	$1,334,017,090
Nevada	45.4%	19,687	$5,118,578,867
New Hampshire	77.1%	4,244	$1,103,382,363
New Jersey	83.3%	18,474	$4,803,197,852
New Mexico	54.1%	13,837	$3,597,594,863
New York	68.0%	83,905	$21,815,389,375
North Carolina	67.0%	41,362	$10,754,181,953
North Dakota	79.2%	1,771	$460,427,595
Ohio	75.9%	37,857	$9,842,903,281
Oklahoma	70.8%	14,611	$3,798,885,391
Oregon	70.4%	13,486	$3,506,271,133
Pennsylvania	80.4%	30,578	$7,950,162,188
Rhode Island	71.1%	3,675	$955,476,958
South Carolina	55.6%	28,478	$7,404,274,414
South Dakota	75.6%	2,511	$652,894,849
Tennessee	65.4%	27,982	$7,275,246,367
Texas	68.5%	118,091	$30,703,733,125
Utah	78.6%	7,985	$2,076,173,760
Vermont	80.2%	1,689	$439,057,671
Virginia	72.9%	29,195	$7,590,623,828
Washington	68.8%	28,001	$7,280,254,414
West Virginia	72.8%	6,530	$1,697,729,668
Wisconsin	80.5%	14,864	$3,864,550,625
Wyoming	74.2%	1,861	$483,876,885
United States	**70.6%**	**1,229,277**	**$319,611,922,500**

* Methodology is described following the Appendices.

Appendix 2

The Impact of a 5 Percent Increase in Male High School Graduation Rates on Crime Reduction and Earnings*			
State	Annual Crime-Related Savings	Additional Annual Earnings	Total Benefit to State Economy
Alabama	$82,114,178	$42,695,448	$124,809,626
Alaska	$10,385,910	$8,229,446	$18,615,356
Arizona	$130,548,518	$53,146,250	$183,694,768
Arkansas	$52,527,329	$24,825,605	$77,352,934
California	$752,933,848	$352,182,007	$1,105,115,855
Colorado	$49,051,830	$42,954,144	$92,005,974
Connecticut	$31,624,059	$31,692,936	$63,316,995
Delaware	$9,923,632	$7,271,214	$17,194,846
District of Columbia	$66,503,310	$3,237,663	$69,740,973
Florida	$332,386,028	$174,243,833	$506,629,861
Georgia	$185,633,644	$90,744,324	$276,377,968
Hawaii	$6,835,886	$11,203,133	$18,039,020
Idaho	$7,374,662	$13,817,814	$21,192,476
Illinois	$263,078,679	$115,756,032	$378,834,711
Indiana	$95,731,795	$56,133,136	$151,864,932
Iowa	$17,544,077	$26,798,824	$44,342,901
Kansas	$36,327,968	$26,397,581	$62,725,549
Kentucky	$50,190,235	$37,221,909	$87,412,144
Louisiana	$164,467,403	$39,778,515	$204,245,917
Maine	$3,046,026	$11,679,610	$14,725,636
Maryland	$160,557,762	$50,869,458	$211,427,220
Massachusetts	$59,187,389	$55,535,231	$114,722,620
Michigan	$175,304,759	$105,034,655	$280,339,414
Minnesota	$30,608,540	$47,171,157	$77,779,698
Mississippi	$66,976,174	$26,274,832	$93,251,006
Missouri	$95,613,931	$51,781,495	$147,395,426
Montana	$10,637,756	$8,967,258	$19,605,015
Nebraska	$16,519,921	$16,469,451	$32,989,371
Nevada	$55,973,838	$22,464,341	$78,438,180
New Hampshire	$3,397,405	$12,032,017	$15,429,423
New Jersey	$120,008,948	$69,283,091	$189,292,039
New Mexico	$37,905,377	$19,840,422	$57,745,799
New York	$286,896,473	$170,426,743	$457,323,216
North Carolina	$151,947,826	$80,880,868	$232,828,694
North Dakota	$2,480,026	$6,408,013	$8,888,039
Ohio	$126,369,800	$106,527,438	$232,897,238
Oklahoma	$63,248,994	$33,164,601	$96,413,595
Oregon	$21,053,644	$30,029,888	$51,083,532
Pennsylvania	$182,071,834	$106,127,515	$288,199,349
Rhode Island	$5,946,578	$9,485,971	$15,432,549
South Carolina	$105,184,170	$45,366,883	$150,551,053
South Dakota	$1,636,287	$7,048,154	$8,684,441
Tennessee	$132,841,628	$50,196,980	$183,038,608
Texas	$428,340,492	$263,016,258	$691,356,750
Utah	$15,180,026	$24,155,106	$39,335,132
Vermont	$3,518,159	$5,783,710	$9,301,869
Virginia	$109,091,336	$70,200,407	$179,291,743
Washington	$50,235,943	$60,499,296	$110,735,239
West Virginia	$19,811,155	$15,995,614	$35,806,769
Wisconsin	$47,775,714	$53,395,707	$101,171,421
Wyoming	$4,467,005	$5,081,534	$9,548,539
United States	**$4,939,017,909**	**$2,799,523,519**	**$7,738,541,428**

* Methodology is described following the Appendices.

Appendix 3

Lifetime Savings for Medicaid and Uninsured Medical Coverage Costs if All Students in the Class of 2005–2006 Graduated from High School*				
State	State Medicaid Savings per Additional Graduate	State Uninsured Savings per Additional Graduate	Total Health Savings per Additional Graduate	Total Lifetime Health Savings if All Students in the Class Of 2005–2006 Graduated
Alabama	$9,216	$896	$10,112	$244,976,155
Alaska	$12,175	$1,058	$13,233	$57,227,676
Arizona	$10,321	$767	$11,088	$265,371,426
Arkansas	$8,222	$908	$9,131	$93,711,844
California	$14,637	$724	$15,361	$2,325,813,659
Colorado	$15,143	$981	$16,124	$279,681,701
Connecticut	$15,143	$882	$16,025	$155,376,012
Delaware	$15,143	$809	$15,951	$65,253,148
District of Columbia	$9,086	$873	$9,959	$19,936,815
Florida	$13,077	$843	$13,920	$1,478,297,933
Georgia	$12,150	$834	$12,985	$746,414,155
Hawaii	$14,837	$988	$15,825	$92,725,623
Idaho	$9,040	$937	$9,977	$45,299,607
Illinois	$15,143	$1,001	$16,143	$647,038,335
Indiana	$11,587	$1,140	$12,727	$283,844,559
Iowa	$11,187	$1,038	$12,226	$84,369,080
Kansas	$12,105	$834	$12,939	$125,849,103
Kentucky	$8,919	$1,056	$9,975	$161,809,671
Louisiana	$8,989	$964	$9,953	$226,748,320
Maine	$10,230	$749	$10,980	$48,612,191
Maryland	$15,143	$901	$16,044	$307,090,433
Massachusetts	$15,143	$731	$15,873	$363,462,657
Michigan	$13,595	$957	$14,552	$750,225,999
Minnesota	$14,694	$750	$15,444	$224,361,106
Mississippi	$7,026	$872	$7,899	$121,181,083
Missouri	$11,960	$840	$12,799	$245,082,419
Montana	$8,389	$1,109	$9,498	$29,816,152
Nebraska	$11,848	$1,009	$12,857	$68,591,505
Nevada	$15,143	$866	$16,009	$230,138,920
New Hampshire	$15,143	$894	$16,036	$63,611,493
New Jersey	$15,143	$850	$15,993	$258,570,959
New Mexico	$8,080	$842	$8,922	$111,497,630
New York	$15,143	$810	$15,953	$1,503,489,117
North Carolina	$11,360	$995	$12,355	$491,596,702
North Dakota	$8,958	$935	$9,893	$15,199,403
Ohio	$12,517	$1,019	$13,535	$502,149,154
Oklahoma	$8,755	$951	$9,706	$137,600,879
Oregon	$12,126	$1,002	$13,128	$185,189,904
Pennsylvania	$13,986	$1,054	$15,040	$505,489,593
Rhode Island	$14,001	$828	$14,829	$56,942,990
South Carolina	$9,101	$873	$9,973	$320,071,956
South Dakota	$9,473	$975	$10,448	$27,919,252
Tennessee	$11,175	$1,007	$12,182	$350,253,748
Texas	$11,702	$831	$12,533	$1,560,947,102
Utah	$8,616	$809	$9,425	$79,164,588
Vermont	$11,436	$727	$12,163	$19,404,276
Virginia	$14,637	$886	$15,523	$396,903,408
Washington	$14,588	$1,043	$15,632	$436,119,866
West Virginia	$7,638	$1,179	$8,817	$55,280,830
Wisconsin	$12,484	$979	$13,462	$202,425,026
Wyoming	$10,891	$917	$11,808	$22,752,102
United States			**$13,706**	**$17,090,887,263**

* Methodology is described following the Appendices.

Appendix 4

Increase in Wealth if All Heads of Households Were High School Graduates*					
State	Number of Households Headed by High School Dropouts	Household Wealth Accumulated by High School Dropouts	Number of Households Headed by High School Graduates	Household Wealth Accumulated by High School Graduates	Potential Additional Household Wealth if All Heads of Household Were High School Graduates
Alabama	351,620	$175,810,000	544,616	$2,723,080,000	$1,582,290,000
Alaska	20,489	$10,244,500	63,185	$315,925,000	$92,200,500
Arizona	317,026	$158,513,000	520,782	$2,603,910,000	$1,426,617,000
Arkansas	204,273	$102,136,500	367,480	$1,837,400,000	$919,228,500
California	2,051,413	$1,025,706,500	2,430,339	$12,151,695,000	$9,231,358,500
Colorado	184,583	$92,291,500	417,417	$2,087,085,000	$830,623,500
Connecticut	158,485	$79,242,500	370,180	$1,850,900,000	$713,182,500
Delaware	44,929	$22,464,500	96,493	$482,465,000	$202,180,500
District of Columbia	37,208	$18,604,000	48,297	$241,485,000	$167,436,000
Florida	999,805	$499,902,500	2,013,765	$10,068,825,000	$4,499,122,500
Georgia	550,222	$275,111,000	929,718	$4,648,590,000	$2,475,999,000
Hawaii	42,599	$21,299,500	117,584	$587,920,000	$191,695,500
Idaho	67,927	$33,963,500	145,914	$729,570,000	$305,671,500
Illinois	632,699	$316,349,500	1,254,359	$6,271,795,000	$2,847,145,500
Indiana	348,924	$174,462,000	872,897	$4,364,485,000	$1,570,158,000
Iowa	125,286	$62,643,000	418,456	$2,092,280,000	$563,787,000
Kansas	116,357	$58,178,500	309,981	$1,549,905,000	$523,606,500
Kentucky	351,273	$175,636,500	542,644	$2,713,220,000	$1,580,728,500
Louisiana	329,976	$164,988,000	550,431	$2,752,155,000	$1,484,892,000
Maine	58,869	$29,434,500	189,943	$949,715,000	$264,910,500
Maryland	246,974	$123,487,000	514,207	$2,571,035,000	$1,111,383,000
Massachusetts	286,424	$143,212,000	632,429	$3,162,145,000	$1,288,908,000
Michigan	496,318	$248,159,000	1,145,179	$5,725,895,000	$2,233,431,000
Minnesota	184,242	$92,121,000	538,137	$2,690,685,000	$829,089,000
Mississippi	235,487	$117,743,500	334,285	$1,671,425,000	$1,059,691,500
Missouri	334,894	$167,447,000	732,401	$3,662,005,000	$1,507,023,000
Montana	33,870	$16,935,000	112,997	$564,985,000	$152,415,000
Nebraska	71,201	$35,600,500	202,559	$1,012,795,000	$320,404,500
Nevada	138,477	$69,238,500	252,470	$1,262,350,000	$623,146,500
New Hampshire	48,078	$24,039,000	144,389	$721,945,000	$216,351,000
New Jersey	420,011	$210,005,500	878,971	$4,394,855,000	$1,890,049,500
New Mexico	123,753	$61,876,500	194,879	$974,395,000	$556,888,500
New York	1,081,614	$540,807,000	1,963,174	$9,815,870,000	$4,867,263,000
North Carolina	579,243	$289,621,500	953,756	$4,768,780,000	$2,606,593,500
North Dakota	33,555	$16,777,500	76,828	$384,140,000	$150,997,500
Ohio	616,295	$308,147,500	1,574,436	$7,872,180,000	$2,773,327,500
Oklahoma	210,859	$105,429,500	418,627	$2,093,135,000	$948,865,500
Oregon	167,164	$83,582,000	348,141	$1,740,705,000	$752,238,000
Pennsylvania	643,215	$321,607,500	1,787,923	$8,939,615,000	$2,894,467,500
Rhode Island	66,409	$33,204,500	113,231	$566,155,000	$298,840,500
South Carolina	299,878	$149,939,000	489,043	$2,445,215,000	$1,349,451,000
South Dakota	35,992	$17,996,000	99,233	$496,165,000	$161,964,000
Tennessee	443,798	$221,899,000	779,513	$3,897,565,000	$1,997,091,000
Texas	1,563,621	$781,810,500	1,964,935	$9,824,675,000	$7,036,294,500
Utah	72,659	$36,329,500	192,510	$962,550,000	$326,965,500
Vermont	25,742	$12,871,000	75,180	$375,900,000	$115,839,000
Virginia	413,061	$206,530,500	723,873	$3,619,365,000	$1,858,774,500
Washington	243,442	$121,721,000	583,352	$2,916,760,000	$1,095,489,000
West Virginia	141,072	$70,536,000	291,817	$1,459,085,000	$634,824,000
Wisconsin	248,936	$124,468,000	730,851	$3,654,255,000	$1,120,212,000
Wyoming	18,568	$9,284,000	64,002	$320,010,000	$83,556,000
United States	16,518,815	**$8,259,407,500**	31,117,809	**$155,589,045,000**	**$74,334,667,500**

* Methodology is described following the Appendices.

Appendix 5

Annual Savings and Earnings Benefits from a Reduced Need for Community College Remediation*			
State	Annual Remediation Savings	Additional Annual Earnings	Total Benefit to State Economy
Alabama	$23,985,384	$29,063,995	$53,049,379
Alaska	$182,126	$489,822	$671,948
Arizona	$32,949,507	$70,778,193	$103,727,700
Arkansas	$8,151,404	$14,897,902	$23,049,306
California	$135,307,841	$552,597,892	$687,905,733
Colorado	$21,208,099	$30,906,311	$52,114,410
Connecticut	$12,593,382	$16,401,363	$28,994,745
Delaware	$3,042,392	$4,637,957	$7,680,349
District of Columbia	$782,861	$806,772	$1,589,634
Florida	$70,920,812	$122,832,024	$193,752,835
Georgia	$27,716,795	$47,754,362	$75,471,157
Hawaii	$4,298,600	$9,355,236	$13,653,836
Idaho	$2,295,457	$4,195,290	$6,490,747
Illinois	$80,904,713	$129,292,923	$210,197,636
Indiana	$17,917,376	$22,366,592	$40,283,968
Iowa	$26,015,510	$27,063,035	$53,078,545
Kansas	$15,470,969	$27,368,260	$42,839,229
Kentucky	$24,728,740	$27,543,353	$52,272,093
Louisiana	$10,031,411	$17,465,447	$27,496,858
Maine	$3,991,127	$3,667,451	$7,658,579
Maryland	$37,973,289	$42,012,478	$79,985,767
Massachusetts	$26,026,101	$31,081,404	$57,107,505
Michigan	$50,519,097	$75,963,362	$126,482,459
Minnesota	$48,902,190	$40,241,442	$89,143,633
Mississippi	$12,452,546	$24,519,981	$36,972,527
Missouri	$21,579,586	$31,447,674	$53,027,260
Montana	$2,025,704	$2,702,063	$4,727,767
Nebraska	$8,947,788	$13,831,625	$22,779,413
Nevada	$8,564,638	$17,275,732	$25,840,371
New Hampshire	$7,971,978	$5,170,913	$13,142,891
New Jersey	$44,825,218	$50,782,121	$95,607,339
New Mexico	$9,788,171	$22,027,006	$31,815,177
New York	$98,614,826	$93,473,405	$192,088,230
North Carolina	$27,632,861	$69,779,176	$97,412,036
North Dakota	$2,917,150	$3,271,207	$6,188,358
Ohio	$69,286,395	$62,795,190	$132,081,585
Oklahoma	$16,039,658	$23,477,830	$39,517,488
Oregon	$30,209,541	$34,107,335	$64,316,875
Pennsylvania	$81,846,059	$43,113,116	$124,959,175
Rhode Island	$1,918,568	$5,822,669	$7,741,237
South Carolina	$26,383,966	$27,884,767	$54,268,732
South Dakota	$1,969,637	$1,992,552	$3,962,189
Tennessee	$19,648,932	$27,196,457	$46,845,389
Texas	$88,507,734	$193,898,993	$282,406,727
Utah	$6,807,382	$10,878,802	$17,686,184
Vermont	$2,747,050	$1,821,115	$4,568,165
Virginia	$36,615,053	$55,307,858	$91,922,911
Washington	$55,887,556	$69,503,194	$125,390,750
West Virginia	$1,363,464	$2,451,304	$3,814,768
Wisconsin	$43,227,424	$42,942,409	$86,169,833
Wyoming	$3,564,487	$6,550,822	$10,115,309
United States	**$1,417,258,558**	**$2,292,808,179**	**$3,710,066,738**

* Methodology is described following the Appendices.

Appendix 6

Additional Personal Income if the Educational Attainment of African Americans, Hispanics, and Native Americans Increases to That of White Students by 2020*		
State	**Additional Personal Income per Capita**	**Additional Total Personal Income**
Alabama	$3,889	$2,134,381,638
Alaska	$1,484	$423,110,051
Arizona	$3,344	$8,644,461,855
Arkansas	$3,998	$785,327,918
California	$1,170	$101,596,190,713
Colorado	$3,551	$5,188,606,198
Connecticut	$3,950	$4,315,606,958
Delaware	$4,837	$634,377,557
District of Columbia	$3,764	$5,317,490,364
Florida	$3,965	$14,663,755,737
Georgia	$3,900	$7,930,898,877
Hawaii	$2,547	$352,192,818
Idaho	$3,846	$408,174,768
Illinois	$3,516	$13,510,622,460
Indiana	$4,077	$1,131,689,298
Iowa	$3,821	$336,225,259
Kansas	$3,786	$1,172,833,406
Kentucky	$3,996	$291,008,831
Louisiana	$2,873	$3,124,440,244
Maine	$4,316	$40,637,361
Maryland	$4,144	$5,970,754,071
Massachusetts	$3,337	$3,504,068,718
Michigan	$4,186	$3,772,426,427
Minnesota	$4,238	$1,307,836,248
Mississippi	$3,575	$1,548,876,962
Missouri	$4,067	$1,263,941,997
Montana	$3,486	$102,579,907
Nebraska	$3,689	$521,398,644
Nevada	$4,205	$2,187,182,198
New Hampshire	$5,094	$51,425,275
New Jersey	$3,607	$11,287,048,818
New Mexico	$2,924	$4,928,408,709
New York	$2,818	$24,325,608,943
North Carolina	$4,222	$5,031,639,236
North Dakota	$3,237	$62,014,474
Ohio	$4,000	$2,610,266,730
Oklahoma	$3,242	$1,007,735,288
Oregon	$3,732	$1,559,595,961
Pennsylvania	$3,765	$4,033,303,789
Rhode Island	$2,925	$494,298,457
South Carolina	$4,039	$2,671,651,061
South Dakota	$3,669	$125,990,765
Tennessee	$4,044	$1,493,793,808
Texas	$2,412	$46,517,384,141
Utah	$4,277	$780,727,335
Vermont	$4,640	Not Applicable
Virginia	$4,395	$6,517,547,903
Washington	$4,069	$3,110,256,023
West Virginia	$3,737	$12,419,546
Wisconsin	$4,054	$1,569,711,086
Wyoming	$3,467	$105,591,901
United States		**$310,477,516,732**

* Methodology is described following the Appendices.

Appendices Methodology*

Appendix 1: The Alliance for Excellent Education (the Alliance) determined the average additional lifetime income if one class of dropouts were to graduate by multiplying the projected number of students who failed to graduate with their class in 2008[149] by the $260,000 estimated lifetime earnings difference between a high school dropout and a high school graduate.[150] National totals are not the sum of the state totals for methodological reasons.

Appendix 2: Crime-related savings were calculated using methods outlined by economists Lance Lochner and Enrico Moretti,[151] which estimate the costs (e.g., incarceration, property loss, and costs to victims) of crimes such as murder, rape, robbery, assault, burglary, larceny, and motor vehicle theft and the percent change in those crimes based on a 1 percent increase in the male graduation rate. For this Alliance analysis, 2003 Uniform Crime Report data on the number of crimes in each state were multiplied by the percent change in each crime that would result from a 5 percent increase in the male graduation rate. Increased earnings were calculated using 2004 U.S. Census Current Population Survey data, which finds that, on average, male, year-round, full-time workers of all races who are high school dropouts earn $11,173 less than high school graduates, $19,174 less than those who attend some college, and $53,850 less than those with a bachelor's degree or higher. According to the National Center for Education Statistics' (NCES) 2003 Condition of Education report, of male students finishing high school, 26.3 percent earn only a high school diploma, 46.8 percent attend some college, and 26.9 percent earn a bachelor's degree or higher. These educational attainment percentages were then multiplied by the number of additional male high school graduates, assuming a 5 percent increase in the male graduation rate. Finally, the number of additional students attaining these levels of education was multiplied by the earnings difference between a high school dropout and each respective level of educational attainment.

Appendix 3: Health-related savings were calculated by Peter Muennig, who estimated the difference in the percentage of people receiving Medicaid and the percentage of people who are uninsured by educational attainment. Muennig also estimated the average cost of a Medicaid recipient and the average cost of an uninsured person to state governments and determined lifetime costs for high school dropouts, high school graduates, those who attended some college, and college graduates. State Medicaid savings and uninsured savings over the lifetime of an additional high school graduate combine to the total lifetime health savings per additional graduate. The total savings per additional graduate was multiplied by the estimated number of additional students who would earn a diploma if high school graduation rates were increased from the current state rate to 100 percent in the 2005–2006 school year[152] to calculate the total health savings if all students in the Class of 2005–2006 graduated on time.

Appendix 4: The Alliance used the U.S. Census Bureau's 2005 numbers for households by educational attainment and multiplied them by their median financial wealth[153] to derive the total household wealth accumulated by education level by state. The difference in the median financial wealth between nongraduates and those with a high school diploma ($4,500) was multiplied by the number of heads of households who did not graduate high school to determine the potential additional wealth if all heads of households were high school graduates.

Appendix 5: Annual remediation savings were estimated by multiplying the cost of one course by the number of students under twenty-five years of age who take at least one remedial course. The College Board estimates that student tuition covers one fifth of the cost of education. Therefore, to calculate the full cost of a community college course, annual tuition was multiplied by five. The resulting number was then divided by ten, which is the average number of courses a student takes over two semesters. To estimate the number of students under twenty-five years of age who enroll in at least one remedial course, the percent of students under twenty-five years of age (52 percent) was multiplied by the percent of public, two-year-college students who report enrolling in at least one remedial course (42.5 percent).[154] District of Columbia data is based on the University of the District of Columbia, which has open enrollment.

To calculate additional annual earnings, the salary difference between students who attend "some college" and students who earn a bachelor's degree was multiplied by the number of students who would have graduated if they did not need remedial reading (potential new graduates). Using 2004 NCES data, the number of potential new college graduates was calculated by multiplying the remedial student count (above) by the percentage (20 percent) of community college freshmen enrolled in remedial reading and by 41 percent, the difference in bachelor's degree attainment between those who enroll in remedial reading (17 percent) and those who do not (58 percent). This new graduate count was then multiplied by the average earnings difference between "some college" and "bachelor's degree," as listed in 2005 Census data.

Appendix 6: The Alliance's calculation used figures from Patrick Kelly[155] showing the net percentage increase in the proportion of the population reaching each level of educational attainment by 2020, based on if minority graduation rates were equal with those for white students compared to if educational attainment rates by ethnicity remain at current levels. Using Census population projections and earnings estimates based on levels of education attainment, the Alliance determined the difference in potential gains in earnings. Increased earnings were calculated using 2004 Census figures, which find that a dropout will earn $9,114 less than a diploma/GED recipient, $14,062 less than an individual with some college, $15,953 less than individual with an Associate's degree, $23,238 less than an individual with a bachelor's degree, and $55,953 less than an individual with a graduate or professional degree.

*Costs in Appendices should not be aggregated.

Endnotes

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